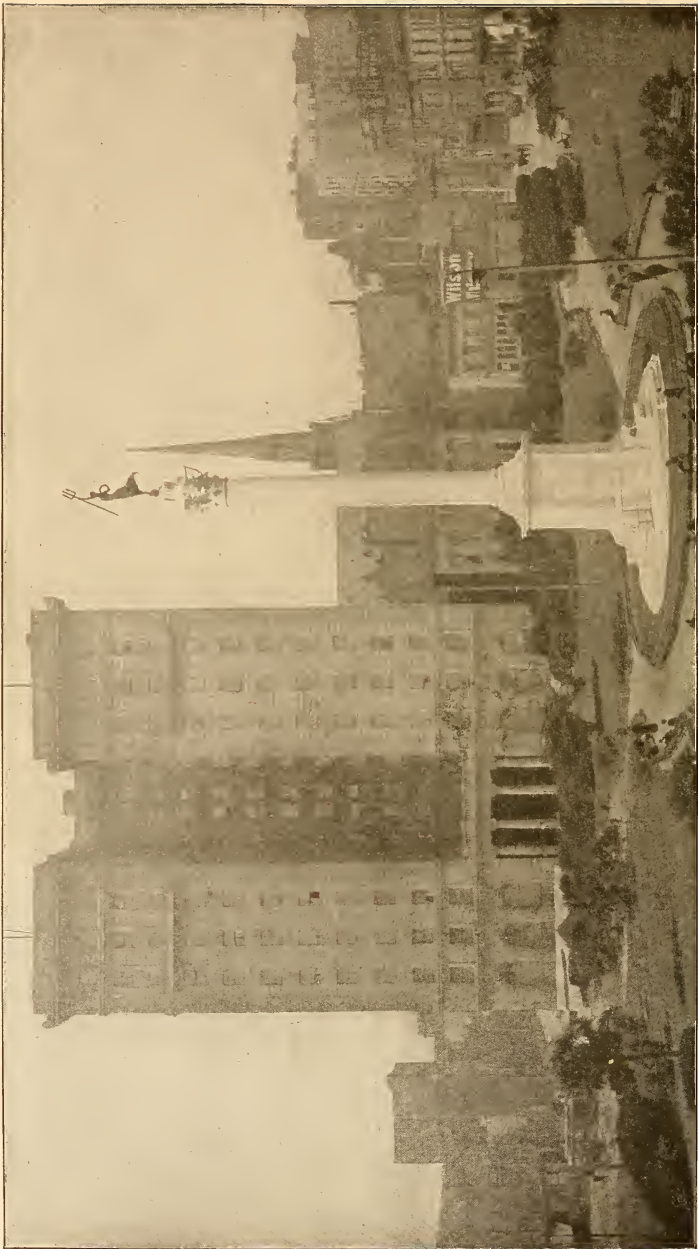




Central Portion of Magnificent \$7,000,000 City Hall as It Appeared Before the Earthquake.



St. Francis Hotel, One of the Most Imposing Buildings Destroyed in the San Francisco Disaster, and the Dewey Monument.

AUTHOR'S PREFACE.

Urged by survivors of the dread catastrophe that befell the imperial city of the Golden Gate to write the story of their fearful hardships and sufferings, and of the fate that befell their loved ones, I have undertaken the task of presenting it in permanent, historic form.

The work will include sad recitals of carnage—of remarkable escapes from death, and thrilling experiences of brave men who risked life and limb to save their fellow sufferers. It will deal with fortunes swept away in a moment; with a nightmare that settled down on a fairy-like city in the space of a breath and left it waste; with the almost superhuman manfulness that awoke in the breasts of the poor, homeless, wretched victims of nature's wrath and stirred them to resolution to rebuild stronger, better, grander than before.

It shall be my endeavor to gather the actual facts pertaining to this terrible and overpowering affair. With a profound sense of appreciation, acknowledgment is made of the assistance and co-operation I have received from the highest officials and from leading experts and scientists versed in seismic lore. Through their courtesy and assistance I have been able to secure data and special information relating to this greatest of modern disasters, which can only be found in this volume. The task of preparing a book of this kind is necessarily trying, and one of mournful interest, keeping constantly in mind, as it does, the peculiarly sad and heart-rending features that characterized this horror of April 18.

Once glorious 'Frisco, with aching heart and head bowed in grief o'er the graves of its unnumbered dead, awakens the pity of the entire globe in this her hour of sorrow and need—sorrow and need brought on by a holocaust without parallel in the history of the new world, or, in fact, in modern times.

One fact and one alone stands forth to relieve the gruesome mournfulness of the hour—the prompt generosity of the world at large in hurrying to the assistance of the stricken, wrecked, flame-battered city of dead and dying. Never before, perhaps has an occasion arisen when the fellowship of man and the spirit of true brotherhood has been so fully and so nobly illustrated.

San Francisco the beautiful, a sparkling gem reflecting the radiance of the evening sun sinking in a golden shimmer in the calm Pacific, has fallen. Her glory, wealth, strength and proud position among the big cities of the

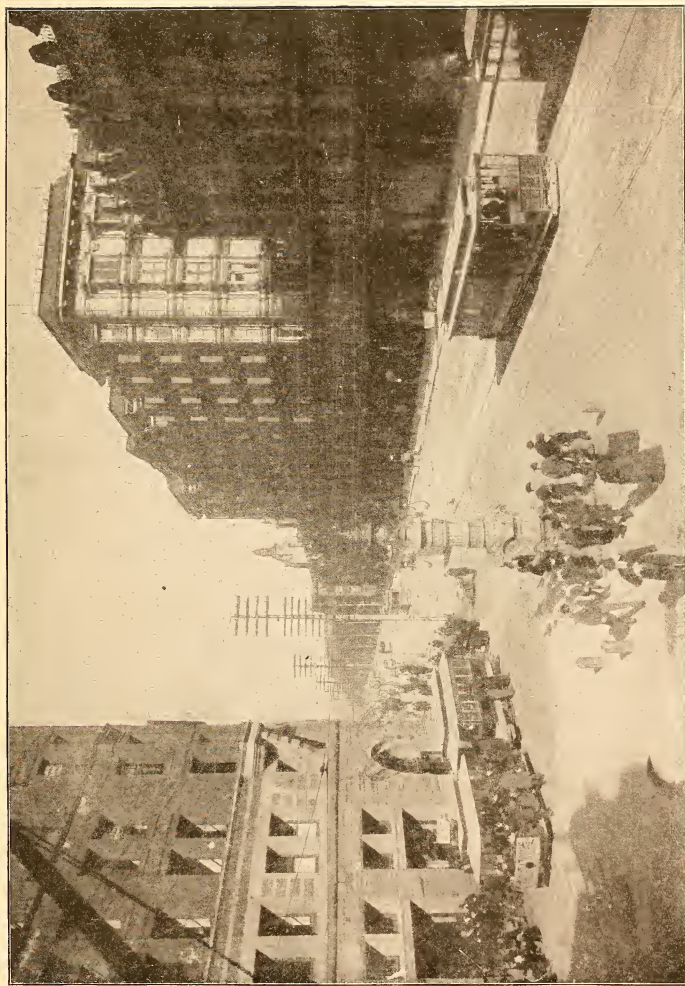
globe have been stripped from her, and she is all but desolate. The charity of the world has alone prevented utter desolation. San Francisco and her sister cities may have not been sacrificed in vain. The spirit of compassion, of helpfulness, of true charity awakened wherever the clicking telegraph key flashed the word of California's loss, will not die. Nor will the spirit of inquiry and investigation that was aroused. Man will learn more of the secrets of nature. He will wrest them from her jealous grasp and will build accordingly. Thousands of lives will be saved tomorrow as the fruit of each lost yesterday.

While this book is intended to be a fitting memorial in commemoration of the tragic and historic event it is my hope and firm belief that its wide circulation will be an instrument for great good. It will contribute its share in giving impetus to that spirit of inquiry and will contribute its quota toward disseminating such knowledge as we possess relating to seismic disturbances.

In this belief and the firm hope the end will be attained, this volume is prepared. Before concluding this brief foreword it is only proper to call attention to the debt of gratitude I owe brave survivors of the dread visitation for the aid they have given me in its preparation. In grateful acknowledgment of their efforts, I respectfully dedicate the book to them.

MARSHALL EVERETT.

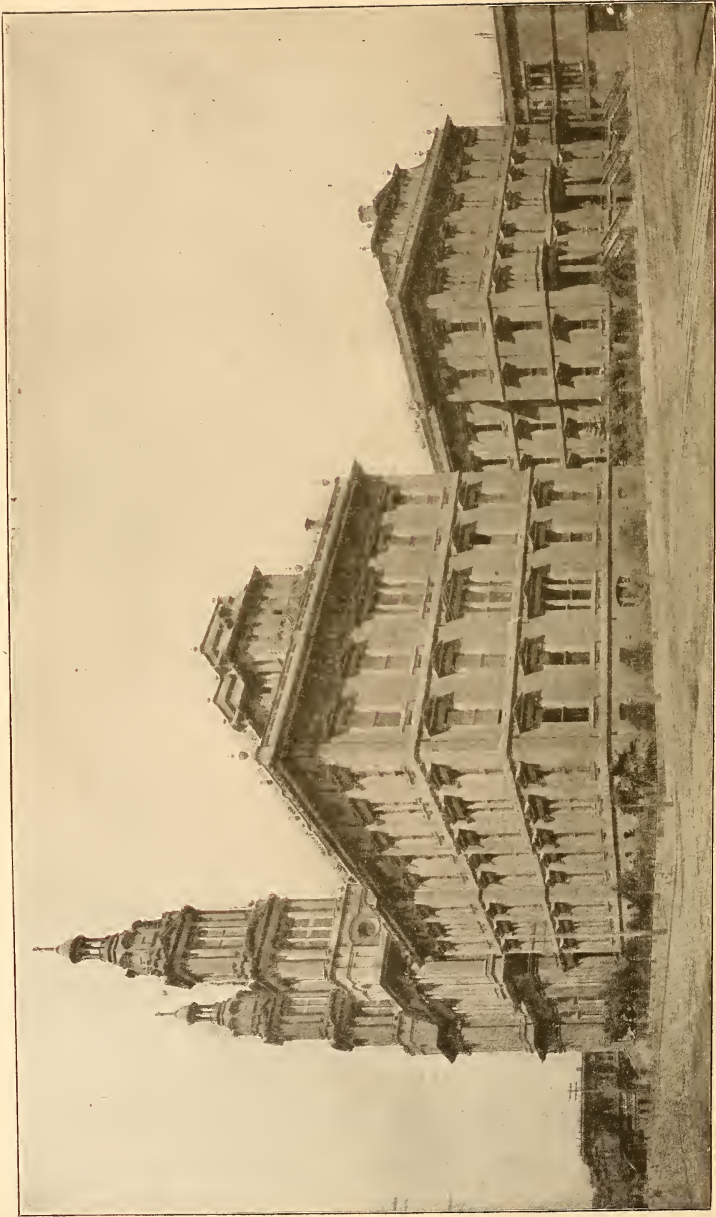
San Francisco, 1906.



Chronicle Building, Destroyed.

Market Street, San Francisco, Before the Earthquake.

Palace Hotel, Destroyed.



Largest Church in the United States, St. Ignatius, San Francisco, Totally Wrecked.

PUBLISHERS' PREFACE.

While the embers of one of the most heart-rending disasters of modern times are still warmly glowing its history has been caught from the lips of the survivors and embalmed in book form. The deep and far-reaching effects of the California casualty will not be eradicated, if much softened, for another generation. That this is true must be realized, when it is remembered in how many ways nature and circumstance seemed to combine to destroy the devoted masses of humanity who met death. The shock and grind of the heaving earth and the horrors of fire take on a fateful, fantastic irony when one recalls that there was water everywhere about San Francisco and not an available drop in the service pipes.

Calamity proves the kinship of the world. In the presence of disaster differences are lost sight of, enmity ceases, and the great heart of all mankind throbs in sympathy with the afflicted ones. Any event that brings the world together, though it be but for a moment, and though the sacrifice of human life precede it, not only deserves but demands to be recorded that the present and future generations may read of it.

And so, believing that the people of today and of tomorrow demand an authentic account of the destruction of San Francisco and of other similar catastrophes, we offer this volume to the public. Endorsed as it is by the survivors of the catastrophe, whose personal knowledge covers every phase of the record here presented, it commends itself to the consideration of every reader who would have an accurate account of the terrible holocaust of April 18, 1906.

It is the aim to give this book an educational value that will accord it an honored position in the library in every home, where it will remain a permanent fixture—a fount of information, a never ending source for reference purposes and an inspiration to those who believe a Divine Intelligence rules the universe and that it is man's destiny to attain complete knowledge of the principles governing physical changes in this world. A glance through its pages will startle those who have given little or no thought to this subject, for the globe on which we dwell has changed with the passing years throughout all the ages. It is changing still and the horror of yesterday was merely a manifestation of it.

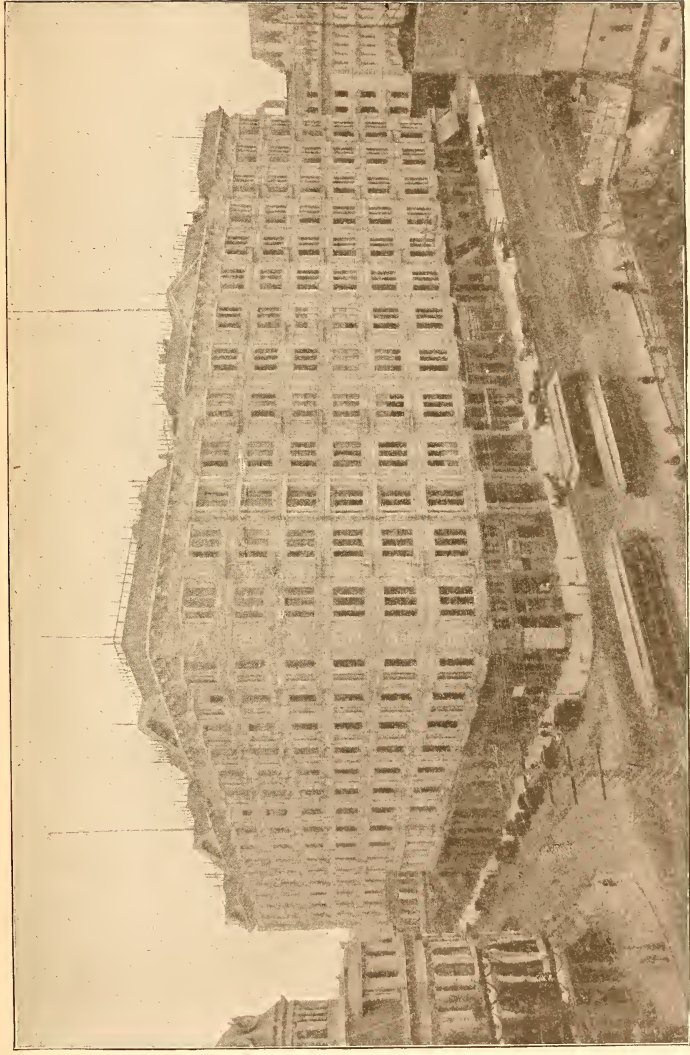
Man must build with these changes in mind. It is difficult to understand how he has the temerity to do otherwise, in view of the story of the past—a story that is made up of chapter after chapter of tragedy in which human life has paid the forfeit of ignorance. All this is recounted in great detail in this book.

It is not only the story of the destruction of San Francisco, but the story of other great disasters as well, and will prove a valuable reference work in that line. The causes of earthquakes, volcanic eruptions and hurricanes are set forth and made clear to the general reader not familiar with scientific theories. We have made it accurate, and have tried to make it interesting and instructive. How well we have succeeded we leave to the judgment of that public which has bestowed such generous approval upon our efforts in the past.

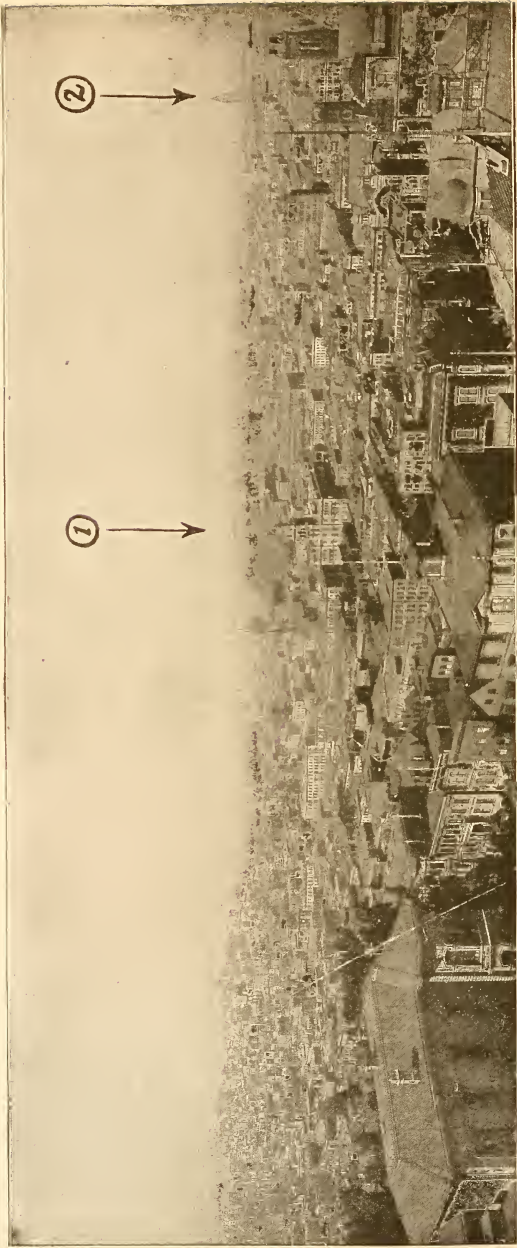
As this is the only permanent publication to present the holocaust to the world, in all its startling completeness, the publishers trust, even in the midst of the deep gloom that pervades the country, that they will prove no ineffective agents in forwarding this work for the protection of the present and future generations.

It would seem that all that is necessary to bring about a world-wide awakening over this deeply vital question is to present to the public the true picture of the California disaster, as has been done in this volume.

THE PUBLISHERS.



Palace Hotel, Market Street, San Francisco.



The City of San Francisco Before the Earthquake. 1. Custom House. 2. Market Street Ferry.



3. Mills Building. 4. Crocker Building. 5. Palace Hotel. 6. Chronicle Building. 7. Examiner Building. 8. Call Building.



City Hall of San Francisco, Wrecked by the Earthquake and Then Burned.

The Cost of This Building was \$7,000,000.

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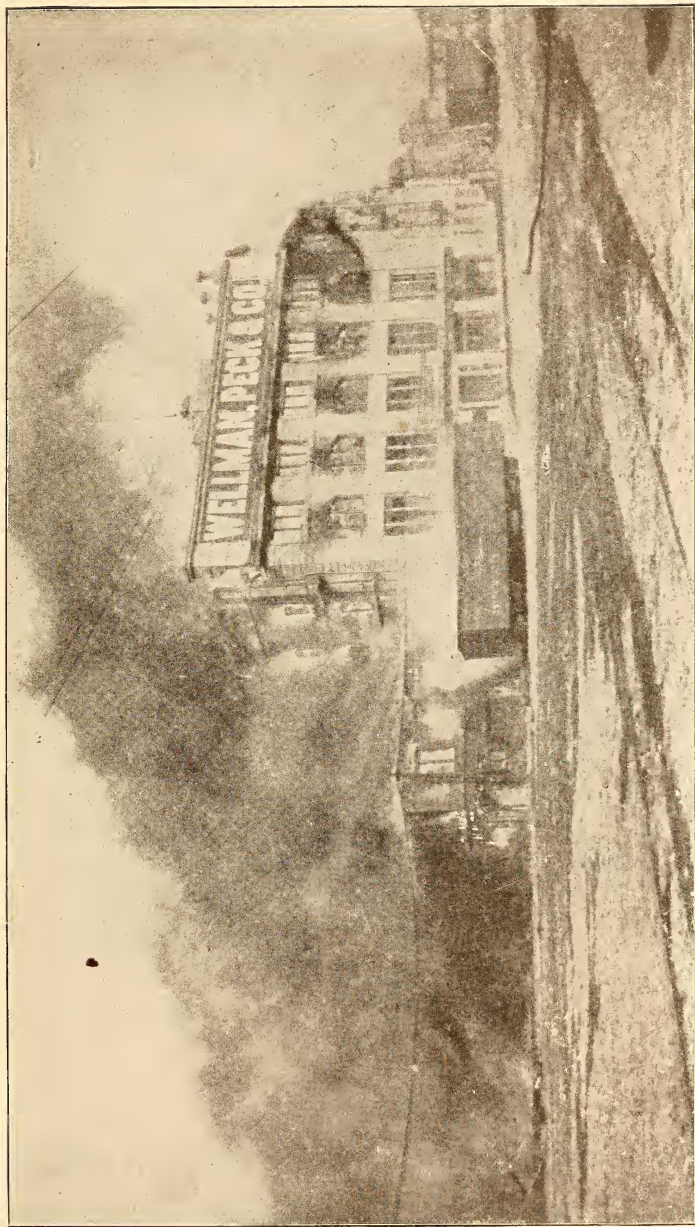
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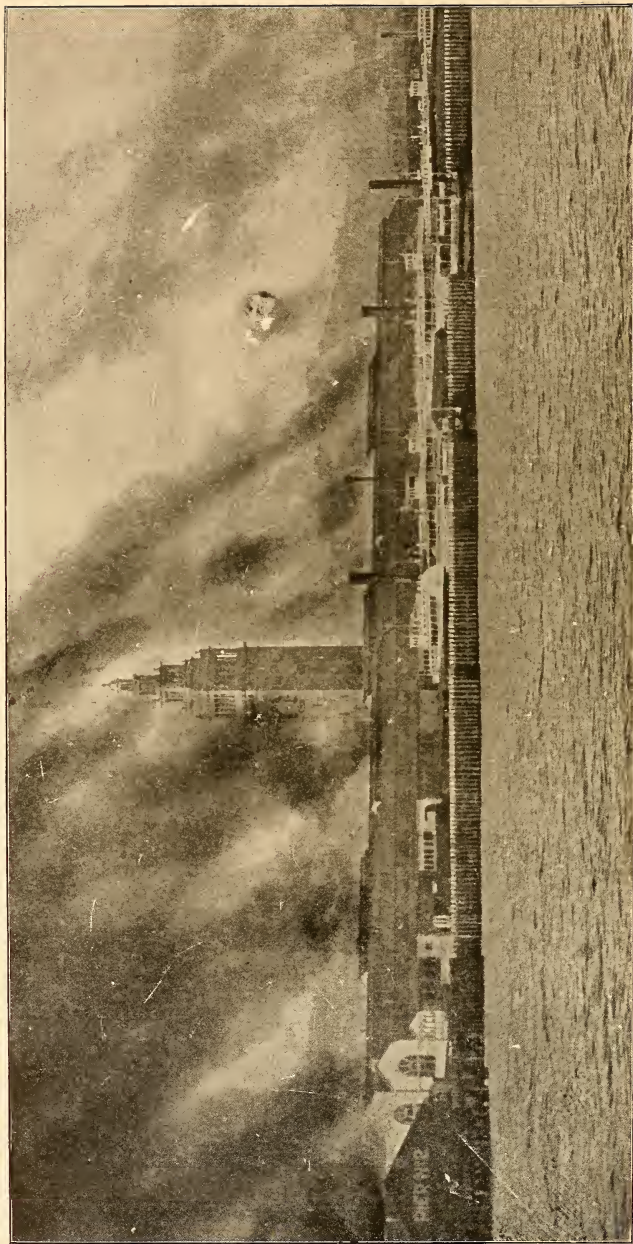
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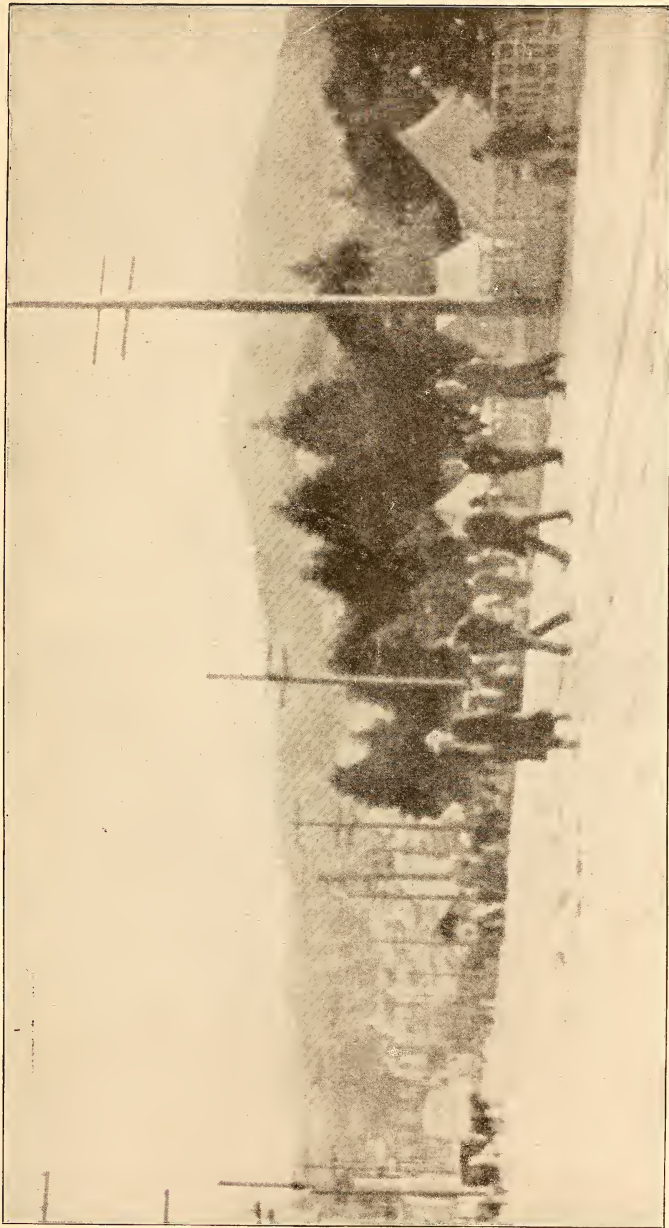
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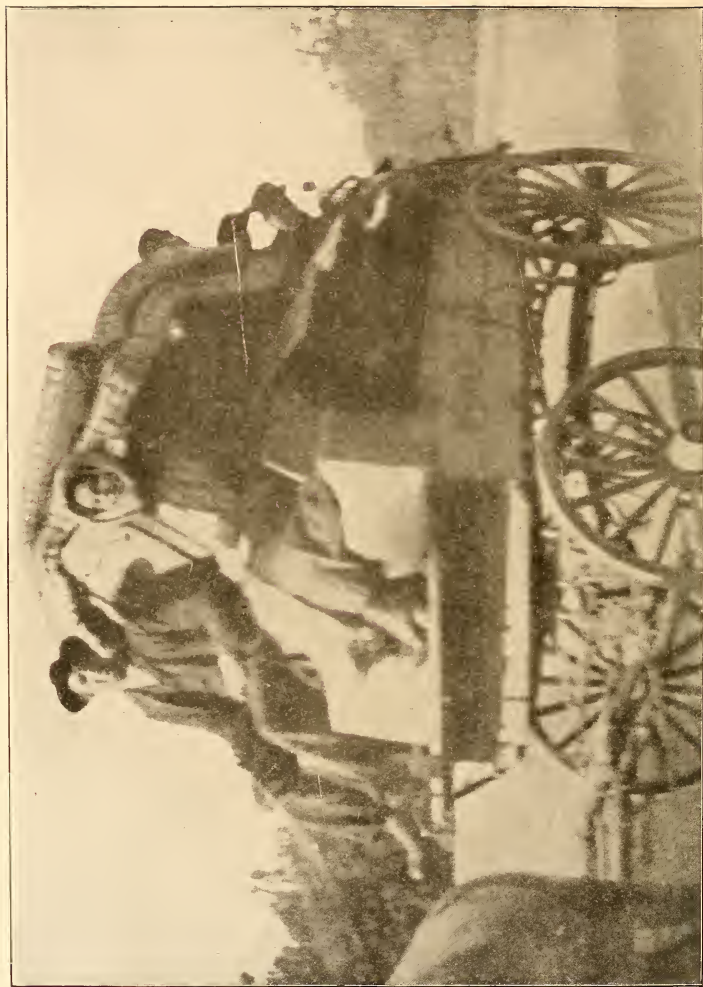
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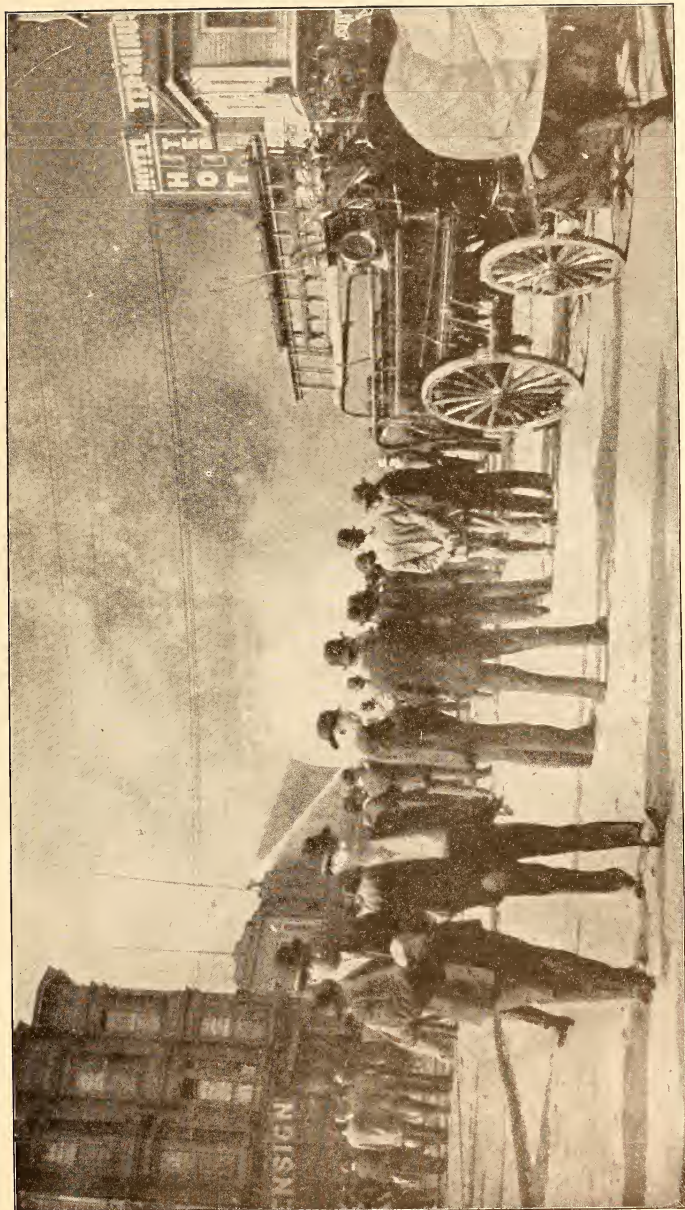
View From a Ferry Boat, Showing the Ferry Depot.



The Hospital Tents for the Sick and Wounded.



Making a Hurried Move Out of San Francisco.



San Francisco Fire Department Doing Their Best.



A San Francisco Street Rent by the Earthquake.

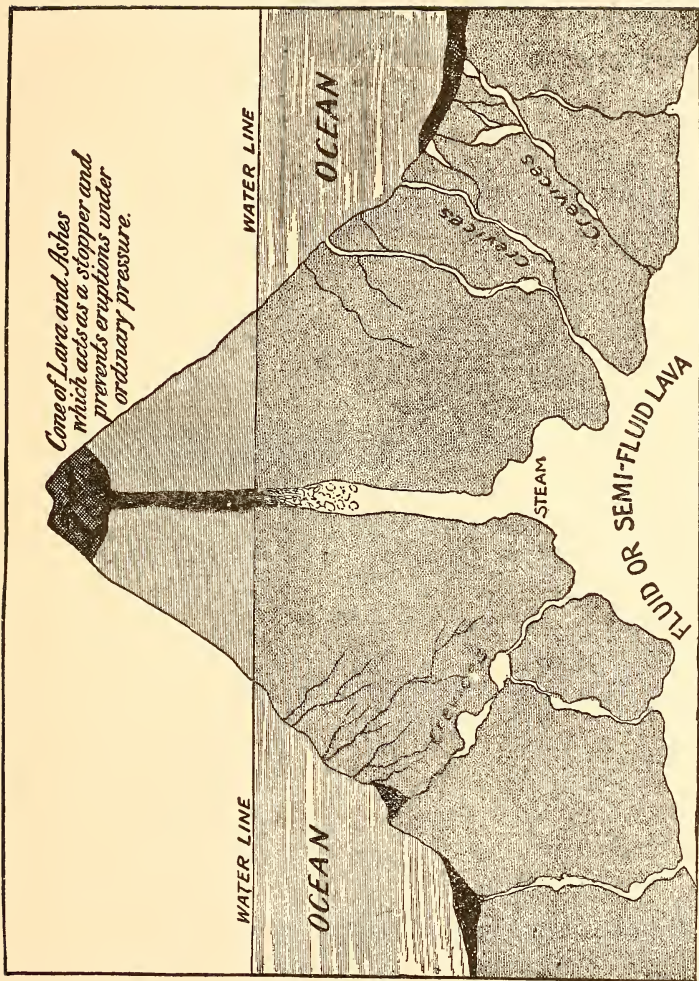
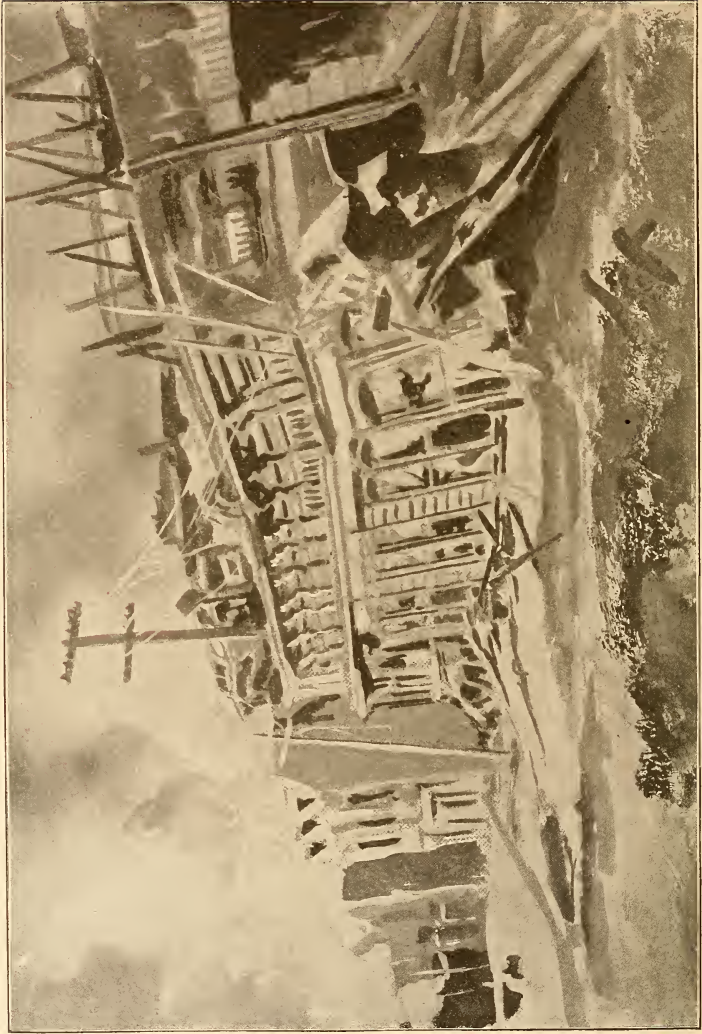


DIAGRAM SHOWING HOW VOLCANIC ERUPTIONS ARE PRODUCED
 WATER COMING IN CONTACT WITH MOLTEN LAVA IN THE VOLCANO'S INTERIOR GENERATES STEAM AND CAUSES AN EXPLOSION
 AS STEAM DOES IN A WEAK BOILER



A Fallen Dwelling House, After the Earthquake.



The Whole Business Section of San Francisco in Flames.



The Call Building When the Earth Trembled.

COMPLETE STORY

OF THE

SAN FRANCISCO EARTHQUAKE

CHAPTER I.

DESTRUCTION OF SAN FRANCISCO.

Earthquake and Fire Descend Upon San Francisco and the Surrounding Cities of California, Causing Enormous Loss of Life and Property—Shock of Death Comes in the Early Dawn—People Flee from Their Beds in Terror, to Face Crashing Walls—Heaving Earth Shatters Gas and Water Pipes, Releasing Noxious Fumes and Kindling Fires in the Ruins of the Once Beautiful "Fairy City of the Golden Gate"—First Shock Followed by Worse Terrors—Furious Flames Sweep Over Doomed City—Firemen Baffled by Lack of Water—Dynamite Used in Vain—Dead Abandoned to the Advancing Cyclone of Fire—Night Falls on a Scene Rivaling Dante's Inferno—Vandals and Ghouls Appear—Looting and Rioting Adds to Hellish Scene—Police Powerless; Troops Called—Corpses Everywhere—Man's Utter Helplessness Demonstrated—Denizens of Foreign Quarter Battle with Fury of Fiends—Mobs Fight at Ferries While Dreary Procession of Refugees Trails Southward to Escape.

And he said go forth and stand upon the mount before the Lord. And, behold, the Lord passed by, and a great and strong wind rent the mountains, and brake in pieces the rocks before the Lord, but the Lord was not in the wind; and after the wind an earthquake; but the Lord was not in the earthquake.

And after the earthquake a fire; but the Lord was not in the fire; and after the fire a still small voice.—I Kings, 19: 11, 12.

Destruction fell on San Francisco in almost every conceivable form. The heaving earth shattered the walls of its towering structures and brought them crashing down on the helpless people within. Combustion spread to the ruins and the fire fiend smote the wrecked city with merciless fury. Absence of water, famine and pestilence each lent their portion to the dismal tragedy. Maddened men and women of the lowest strata of society battled in the scarred and smoking ruins for plunder, while soldiery shot down the ghouls and looters.

Such a scene can only be imagined after a midnight session with Dante. It was Inferno apotheosized.

It followed a night of restful calm—a night during which the fairy city of the Golden Gate throbbled with the joy of life. Its palatial theaters were crowded. Its bright lights flashed from the highlands over the bay and adown the rugged passage to the western sea.

Morning brought the transformation just after rosy dawn awakened early risers to their toil—and death.

The first shock, which lasted almost five minutes, and which started the wrecking of the city, came just at daybreak, and through a day of terror the people fought, aided by soldiers, to check the following flames. At midnight the fire still burned fiercely in every direction, checked on two sides by the water of the bay, and held back from the other two and from the main residence districts by the half gale that had fanned its fury all day.

The firemen and the 4,000 soldiers who were fighting the flames and rescuing the dead and injured labored all day without water, for the earthquake snapped the water mains and left the city helpless.

Dynamite and powder were the only agencies left with which to battle. Many of the finest buildings in the city were leveled to the ground by terrific charges of explosives in the hopeless effort to stay the horror of fire. In this work heroic soldiers, policemen, and firemen were maimed or killed outright.

FLAMES FURNISH ONLY LIGHT.

With nightfall there was no light, except the glare of the flames—for the gas plants were blown up or shut off for purposes of safety and the earthquake destroyed the machinery in the electric light works.

Nearly a quarter of the population of the city either fled to the hills and other supposed points of greater safety—or were homeless in the streets.

Martial law was proclaimed, nearly 4,000 soldiers patrolling the streets with orders to shoot all vandals.

While the center of the earthquake was in San Francisco, the destruction and death covered the coast for miles, and the scenes in San Francisco were duplicated on a smaller scale in half a dozen of the nearer cities.

As night descended upon the city of death and destruction the fact that there were no lights brought on fresh terror, which was accentuated by the third sharp shock, which came just before dark.

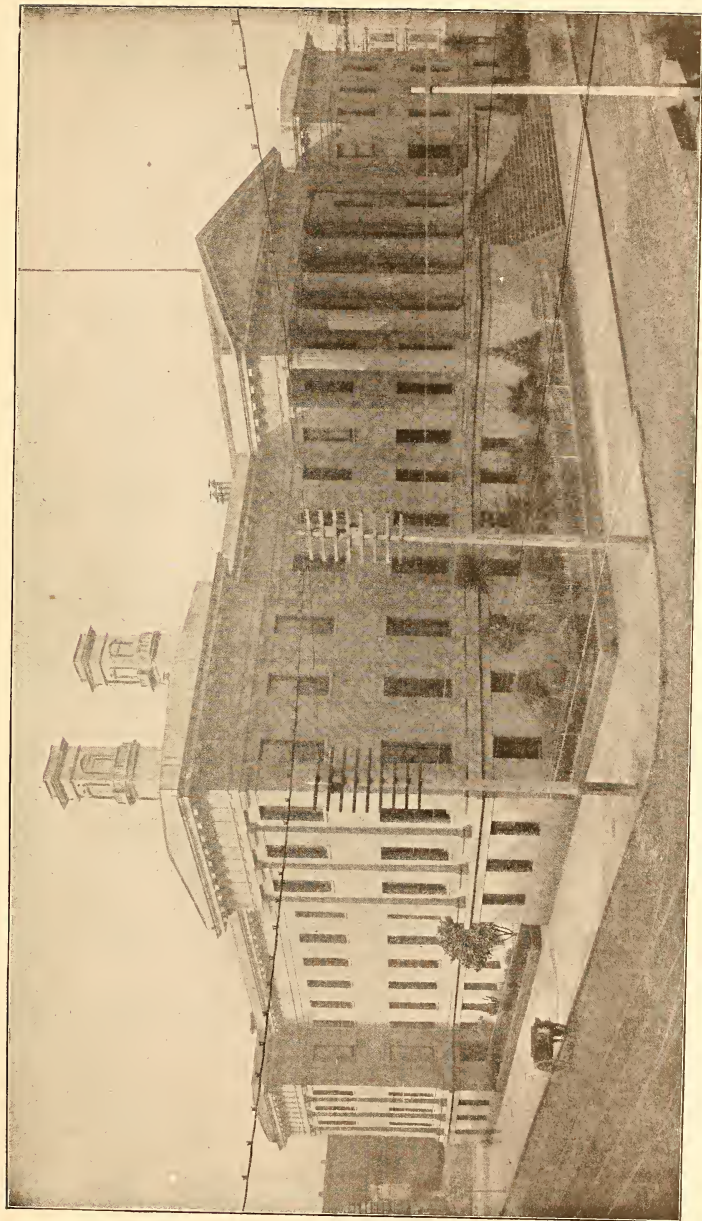
As the flames spread into the residence districts people left their homes and fled to the parks and squares.

The city resembled one vast shambles with the red glare of the fire throwing weird shadows across the worn and panic-stricken faces of the homeless wandering the streets or sleeping on piles of mattresses and clothing in the parks and on the sidewalks in those districts not yet reached by the fire.

SCENE OF DIRE GRANDEUR.

Forgetting for a moment the terrible suffering, physical and financial, that trailed in the wake of the disaster, the scene presented by the flames was one of unspeakable grandeur.

Looking over the city from a high hill in the western addition the flames could be seen rolling skyward for miles and miles, while in the midst of the tongues of red fire could be seen the black skeletons and falling towers of the doomed buildings. At regular intervals the booming of the dynamite told of the work of the brave army of men attempting to save the city from complete annihilation.



The United States Mint, San Francisco, Partly Wrecked but the Money Vaults Left Intact.

The troops from the Presidio, the Thirteenth infantry from Angel island, the coast artillery, and the militia patrolled the streets—with orders to shoot at any person seen robbing the dead or wounded or looting the wrecked stores—so that it practically was impossible to cross the streets.

The worst feature of the night was that the temporary morgue and hospital, established in Mechanics' pavilion, crowded with the dead and injured, was threatened with destruction by fire. The troops, the firemen, and the police used dynamite to hold back the flames from the building.

LEAVE DEAD TO BURN.

Through all the streets automobiles and express wagons hurried, carrying the dead and injured to the morgues and the hospitals. At the morgue, in the hall of justice, scores of bodies were on the slabs. The flames rapidly approached this building and the work of removing the bodies to Jackson square, opposite, began. While the soldiers and police were carrying the dead to what appeared safe places, a shower of bricks from a building dynamited to check the progress of the sweeping flames injured many of the workmen and sent soldier after soldier hurrying to the hospital. The work of removing the bodies stopped and the remainder of the dead were left to possible cremation in the morgue.

Offers of relief poured in all day—from every direction—but the city was isolated from the world except by telegraph. The railway tracks for miles were destroyed, twisted, and contorted. In places the tracks sunk ten feet, in other places they were torn to pieces.

It was days before the city could communicate with its sister cities by railway, and appeals for food and fresh water to be sent by steamers from coast points were sent out.

NUMBER OF DEAD NEVER KNOWN.

It was many days before the complete story of the ruin wrought by the double calamity of earthquake and fire that visited San Francisco was realized and there will still remain untold countless tales of pitiful tragedy. The exact loss of life will never be known as hundreds of unfortunates were incinerated in the flames which made the rescue of those buried under toppling steeples and falling walls impossible.

The first shock was at 5:13, and it came without warning save a slight reverberating roar, the motion of the earth being from east to west. The upheaval was gradual, and for a few seconds it seemed as if the entire city was being lifted slowly upward, and then, after perhaps five seconds of the sickening rising sensation the shock increased in violence.

Chimneys began to fall, the houses trembled violently, swayed, and some fell with crashes.

In an instant the panic began. People driven from their beds ran unclothed into the streets, screaming, crying, and praying. They screamed to each other, begging for help and asking each other what had happened.

Many fled in terror to the basements—others fainted or fell terrorized in their own homes. They were safer than those who rushed into the streets at the first awakening—for these were struck down by showers of falling brick.

BUILDINGS SWAY AND TUMBLE.

Buildings tottered on their foundations. Some rose and fell, and, when falling, the fronts or sides burst out as if from explosions, hurling tons of brick, mortar, and timbers into the streets. Great rents opened in the ground.

Those who remained indoors generally escaped death or injury, except in cases where the entire buildings collapsed, although hundreds were hurt by falling plaster, pictures, or flying glass. It is believed that there are more or less injured persons in every family in the city.

The great skyscrapers stood the strain much better than the brick buildings, or even the heavy stone ones, and but few of them were badly damaged by the first shock, most of them standing, with the terra cotta, brick, or stone filling burst out, mere skeletons of their former appearance, waiting for the fire to complete the destruction.

There were exceptions even to this. The great eleven-story Monadnock office building, in course of construction, which adjoined the Palace hotel, was an exception, part of it falling while the rear wall collapsed, and great cracks were made across the front.

DAWN LIGHTS UP HORROR.

The dawn was just breaking when the terror was at its height. When the sun at last broke through the mist that drove in from the bay and the people saw and realized the devastation hope almost left them.

Women lay down in the streets to await the death that seemed inevitable. Others fainted and lay where they fell. Humanity was forgotten, and the primal instinct of man seized on the people.

The dead and helpless were left where they fell in that first wild frenzy of terror. Men in the delirium of fright leaped over forms that lay in their way and ran on, not knowing where they were going, impelled only by the dread of unseen horror and struggling for life.

Before the first flush of horror had passed the thousands of persons, men, women, and children of every nationality and color were streaming down Market street to the ferries. Out on the bay away from the toppling, swaying buildings and the horror of death and desolation seemed the only place of safety. Order and sanity were thrown to the winds.

None knew where to turn. They fled like panic-stricken animals towards any place that offered shelter, finding death or injury in the open streets, and fearing each instant that a new shock would bring their homes down upon them.

At hundreds of places the streets had opened from the shock, especially

in the made land. At others, where the water mains had burst, basements were flooded, streets torn up, and buildings undermined.

FLAMES BURST FROM RUINS.

Hardly were the people of the hill district out of their houses when the dawn to the east was lit up in a dozen places by fires which had started in the business district below. The first of these came with a sheet of fire which burst out somewhere in the warehouse district, near the water front.

Men from all over the upper part of town streamed down the hills to help. There were no cars running, and none could, for the slots of the cable cars and the very tracks were bent and tossed with the upheavals of the ground.

The fire department responded. Chief Sullivan of the fire department was dead, killed by the cupola of the California hotel, which had fallen through the roof of the fire house where he was sleeping. His assistant rang in a general alarm.

The firemen, making for the nearest points, got their hoses out. There was one rush of water and the flow stopped.

The great water main, which carries the chief water supply of San Francisco, ran through the ruined district. It had been broken, and the useless water was spurting up through the ruins in a dozen places.

The firemen stood helpless, while fire after fire started in the ruined houses. Most of these seem to have been caused by the ignition of gas from the gas mains, which were also broken. The flames would rush up with astonishing suddenness, and then smolder in the slowly burning redwood of which three quarters of San Francisco was built.

When day came the smoke hung over all the business part of the city. Farther out fires were going in the Hayes Valley, a middle class residence district, and in the old mission part of the city.

FIGHT FIRE WITH DYNAMITE.

Dynamite was the only thing left with which the fire might be fought and this was used wherever it was thought the flames might be checked.

Mayor Schmitz, aroused from his bed by the shock, rushed to his office in the city hall, hurrying through showers of brick and stone—only to discover that the new city hall, built at a cost of over \$7,000,000, was a wreck.

The roof had fallen, the walls were bulged, the towers—except the main dome—had crushed down into the courtyard, and the destruction seemed complete.

His first appeal was for the troops from the Presidio, but he discovered that the police already had made the appeal. He then issued a sweeping order to close every saloon in the city, for already—within an hour after the first shock—the rougher element, the men from down the "Barbary coast," were beginning to recover from their terror, and it was feared that anarchy would add terror to the earthquake and the fire.

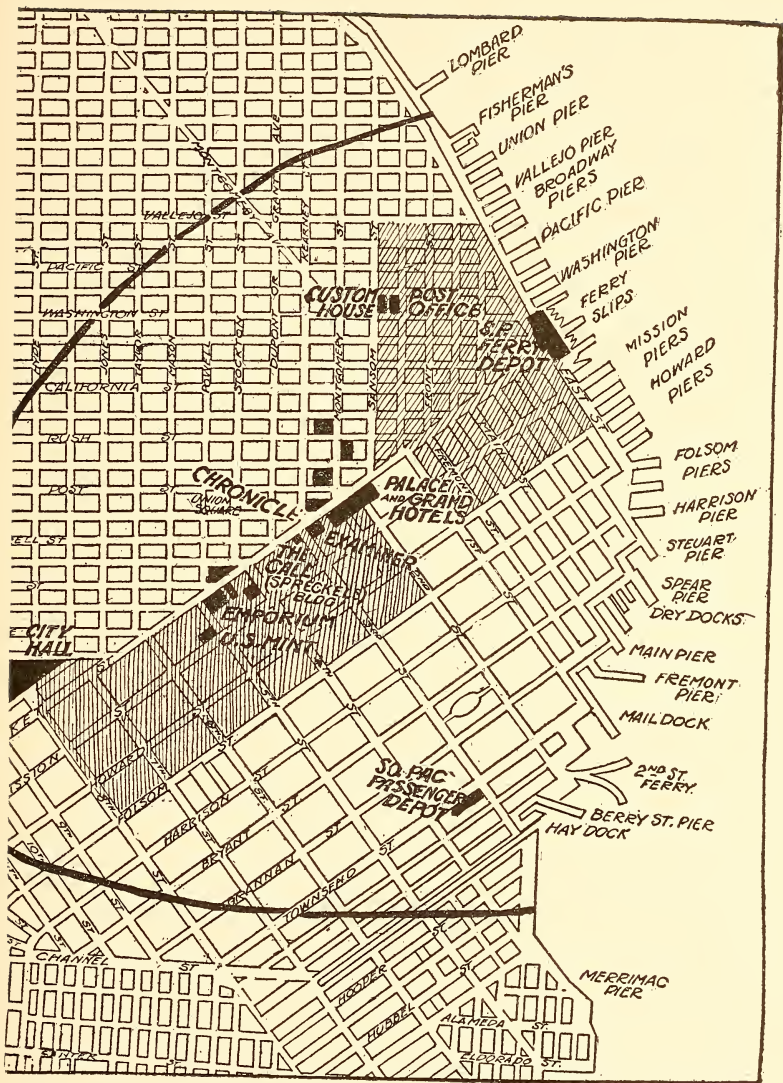


Diagram of the Heart of San Francisco, Showing the District First Swept by the Flames.

Chief of Police Dinan got out the whole police force and Gen. Funston, acting on his own initiative, ordered out all the available troops in the Presidio military reservation. After a short conference the town was placed under martial law, a guard was thrown about the fire, and all the dynamite in the city was commandeered.

FIRES DRIVEN TO CITY'S HEART.

The day broke beautifully clear. The wind, which usually blows steadily from the west at that time of the year, took a sudden veer and came steadily from the east, sending the fire, which lay in the wholesale district along the water front, toward the heart of the city, where stood the modern, steel structure buildings, mainly stripped of their cement shells.

An outpost of the flames ran along Market street, leaping New Montgomery, and shot out toward the Palace hotel. At the same time a steady fire coming up from the south attacked from the rear.

The Palace, holding perhaps 400 guests, besides its servants and house force, had stood the shock. The guests were all out before it came into danger of the fire, and had either got across the bay before the fires cut off that means of egress or fled to the hills. Part of the Grand hotel, across the street from the Palace, was blown up in the attempt to stop the steady advance of flame. This checked it only for a time.

By the middle of the forenoon the fire gripped the famous old Palace hotel, and was jumping on to the heart of the city, where on four corners stand the tall buildings of the three morning newspapers and the Mutual bank building.

In the meantime there had been a second and lighter earthquake shock at 8 o'clock, which had shaken down some walls already tottering and taken the heart out of many of the people who had hoped that the one shock would end it.

HUNDREDS BURIED IN THEIR HOMES.

How many buildings went down in these two shocks and how many people were killed will never be known. The world knows only the larger items of the catastrophe. Probably scores of little houses went down, burying four and five people in each. These little holocausts and some of the greater ones happened in an area about two blocks wide which runs south of Market street, the main thoroughfare, east to the water front.

It was a district of little lodging houses inhabited mainly by sailors, interspersed with business houses. There seems to have been another center of disturbance in the mission district, much farther west, and there was heavy loss of life at that point.

The Kingsley house, a crazy, cheap old hotel on Seventh street, between Mission and Howard, collapsed at the first shock. Seventy-five people were buried in the ruins. The firemen pulled some of them out alive, but most of them were left under the ruins.

The earth literally rose under the Valencia hotel at Seventeenth and Valencia in the mission district and the building came down. How many were killed there no one knows. The estimate runs as high as a hundred.

WORST LIFE LOSS IN LITTLE WRECKS.

In these little wrecks most of the lives were lost. The great business and municipal buildings were stripped or went down with little loss of life, owing to the time of day when the earthquake occurred.

These made of San Francisco a picturesque ruin, choked with debris and fallen stone, long before the fire finished it. Chief of the wrecks was the great city hall, a stone pile which cost \$7,000,000 and was nearly twenty years in building. Its dome fell, its walls were rent apart, and it was just a great jumble of fallen stone.

Further down the street the new postoffice, a \$2,000,000 building, was wrecked.

The roof of the Hobart building fell in, but the Postal Telegraph operators who occupied that building staid at their posts until they were driven out by the dynamiting of adjacent buildings. The top floor of the new Merchants' Exchange building fell in.

FLAMES SWEEP OVER RUINS.

The flames spread through the ruins with wonderful rapidity. San Francisco was paying for its carelessness in permitting the erection of wooden buildings in many districts, for it was in these districts that the flames, gaining great headway, grew until they leaped streets and attacked the majestic structures that had withstood the shock of the earthquake.

The shock of fearful explosions of dynamite had added to the terror.

The south side of Market street, from Ninth down to the bay, was soon ablaze. A hundred fires—uniting until they became one—were raging in the Mission district.

From the hills it seemed as if the entire business section of the city was in flames, and that everything was doomed.

The flames were marching down Market street towards the bay, destroying everything in the way. It was as if two columns of fire, one three blocks wide, the other four, were moving together down toward the water front.

The flames leaped across Stevenson street and wrapped around the magnificent Claus Spreckels building, fifteen stories high, which was the finest building in San Francisco, and within a few minutes that was wrapped in flames from bottom to top, while the little wooden buildings around it merely helped to add to the magnificence of the bonfire which was consuming the most noticeable building in the city.

COLUMNS OF FIRE SWEEP EVERYWHERE.

The great columns of fire rushed down streets, turned corners, roared through a cross street, and then, leaping entire squares or blocks, rushed onwards to the wooden portion of the town nearer the river.

The Grand Opera House, wherein the preceding night Caruso sang with the Metropolitan Grand Opera Company in the opening opera of the engagement, was attacked, and all the expensive scenery and costumes were destroyed with the building.

In the middle of the morning the whole Oakland fire department, answering a call from San Francisco, came over on a special ferry boat. By that time there was a wall of fire between the water front and the main business district. They took to the wharves and marched far to the south before they found a way through the flames, and reached the San Francisco firemen, who were still working without water.

STREETS CLOGGED WITH DEBRIS.

The Oakland men were distributed through the town to attend to the lesser fires, which were all spreading to make San Francisco a city of flame. Every street was clogged with debris, so that often they had to cut a way with axes to get through the streets. There was an overpowering smell of gas everywhere from the broken mains. Now and again, these would catch fire, making a great spurt of fire which would catch in the debris.

The first work of the firemen was to stop these leakages. They piled on them bags of sand, dirt, clods, even bales of cloth torn from the wreckage of burning stores. In the middle of the morning, however, there came a report from the south louder and duller than the reports of the dynamite explosions. There followed a burst of flame against the dull smoke.

The gas works had blown up and the tanks were burning. After that the gas leaks stopped.

But the fire had beaten the firemen at the Palace hotel. The old red-wood building was burning and reaching out to the Examiner building at the corner of Third and Market streets, from which it was but a jump across the street to the big Call building. That structure, like the Palace earlier in the day, was menaced from the rear also.

DYNAMITE FAILS TO STOP FLAMES.

The firemen dynamited a four story building housing railroad offices, which lay between the Palace and the Examiner building. That did not stop it. Just before noon the men in the newspaper offices who had reported for duty and were hanging on to the last, left the building.

The east wind gave another spurt, and the fire caught the Call building. Hardly were these burning and beyond hope before the wind switched to its normal southwest direction and the Chronicle building, northward across the street, caught fire. When this happened all the newspaper offices had been transferred to the Chronicle building, whose basement presses had somehow lasted through, and they were preparing to issue all the papers from the one office. Driven out of this last stand, they took to the hills or tried to get out to Oakland and a wire.



A Unique House in San Francisco, Destroyed.

In addition to the main conflagration half a dozen others were raging, and seemed to be uniting into one great fire which would sweep clean all the low lying parts of the city.

The hills district, where the well to do residents lived, was not spared, and there were ten or twelve small fires there. In this part of town there was some water from the hill reservoirs, and this, together with the slow burning quality of the redwood of which they were mostly built, seems to have saved these parts of the town, temporarily at least.

Further down, in the flats of the Hayes valley, the fire ran fast through a thickly inhabited district of working people. In the midst of this district was St. Ignatius' church, the largest church on the Pacific coast. This caught early, and went up in a sheet of fire. Block after block in this part went up.

The whole water front, except the fine big ferry building of the Southern Pacific company, burned to the ground, and this fire extended to the warehouse district, taking the stores of the Pacific trade.

Another center of flame was California street, the financial district.

ANCIENT MISSION WIPED OUT.

The old adobe mission Dolores built more than a hundred years ago and the very nucleus of the old town of Yerba Buena was soon destroyed. The streets of the mission district were choked with debris in places.

The explosion of the gas tanks was only a temporary check to the escaping gas, for in the afternoon it began to shoot out again through the broken mains. Wherever it rushed out there was a heavier fire or a new fire started.

Firemen began to drop, choked with gas fumes. The militia, which had been ordered out, and the regulars dropped their guns and took their places. Men from the water department had been working all the morning to make connections between the lower city and the hill reservoirs.

They got it in the afternoon, and at about the time when the soldiers shut down martial law on the city, when the business district had become almost one great conflagration, and the telegraph operators, the correspondents, and the other people upon whom the world depended for the news of the catastrophe moved over to Oakland, the firemen were getting some streams on the flames.

SHIPPING ESCAPES FLAMES.

In the general disaster no one paid much attention to the shipping in the harbor. Hundreds of vessels lay tied up at the docks that fringe the city almost to the Golden Gate. They had plenty of warning, however, and most of them slipped their cables and slid out into the stream.

While the water front fire took all the little buildings along the wharves and most of the warehouses, with their stores of wheat and merchandise, it missed the docks themselves and no vessels were burned. The anchorage in the bay was crowded.

There was some indignation because certain ferryboats under orders refused to come into the docks and take people away when the troops permitted the refugees to leave the city.

Fear of a tidal wave added to the terror in the town.

Early in the day Mayor Schmitz, establishing headquarters in the Mechanics' pavilion, issued orders that it should be transferred into a temporary hospital.

As the morning advanced processions of injured, walking, creeping, or being carried, moved slowly in the direction of the hospitals. For the most part they were left to aid themselves. The hospitals were in confusion. Left in darkness and without heat or water, the patients were in a panic of fear, made greater because they could not help themselves and did not know what was happening.

Organized work of caring for the dead and injured did not commence until the morning was well advanced. The city morgue was soon crowded. The mayor then ordered that Mechanics' pavilion, the scene of so many famous prize fights, should be used as a temporary morgue.

MECHANICS' PAVILION A MORGUE.

In less than two hours more than 100 bodies taken from the ruins of the fallen buildings had been laid out on the floor. The dead were brought from every part of the city in every sort of vehicle. Inside the pavilion a corps of doctors and volunteer nurses labored with the injured brought in with the dead.

In the first hour of the disaster many must have been killed by live wires. Almost all the electric light wires fell across the streets and the work they did was proved by the presence at the temporary morgue of many corpses on whom the only mark was a burn about the hands or feet. This lasted for only an hour. After that the electric power was cut off.

When the city awoke to a full realization of the fate that had befallen it and the fight to escape death became unanimous, thousands made for the banks, where their savings were deposited. Long before the usual hour of opening hundreds of the more daring were clamoring around the bank doors.

But the banks did not open. To have opened meant the certainty of runs that would have sent many of them to the wall. Thousands left the city practically penniless, not knowing whether their savings would be swept away with their homes and business.

The food problem was already troubling the authorities. Mayor Schmitz had ordered grocers and dairymen and bakers to hold their supplies at the disposition of the authorities. The food was distributed equally, rich and poor sharing alike.

SCENES OF HORROR IN RUINED CITY.

Of the scenes which marked the transformation of this, the gayest, most

careless city on the continent, into a wreck and a hell it is harder to write. The day started with a blind general panic. People woke with a start to find themselves floundering on the floor.

In such an earthquake as this it is the human instinct to get out of doors, away from falling walls. They stumble across the floors of their heaving houses to find that even the good earth upon which they placed their reliance is swaying and rising and falling, so that the sidewalks crack and great rents open in the ground.

The three minutes which followed were an eternity of terror. We learn here of at least two people who died of pure fright in that three minutes when there seemed no help in earth or heaven.

There was a roar in the air like a great burst of thunder, and from all about came the crash of falling walls. It died down at last, leaving the earth quaking and quivering like jelly.

Men would run forward, stop as another shock, which might be greater any moment, seemed to take the earth from under their feet, and throw themselves face downward on the ground in a perfect agony of fear. It seemed to be two or three minutes after the great shock was over before people found their voices.

There followed the screaming of women, beside themselves with terror, and the cries of men. With one impulse, people made for the parks, as far as possible from falling walls. The parks speedily became packed with people in their night clothes, who screamed and moaned at the little shocks which followed every few minutes.

FLAMES RACE WITH DAWN.

The dawn was just breaking, but there was no other light, for the gas and electric mains were gone and the street lamps were all out. But before the dawn was white there came a light from the east—the burning of the warehouse district.

The braver men and those without families to watch over struck out half dressed, as they were. In the early morning light they could see the business district below them, all ruins and burning in five or six places.

Through the streets from every direction came the fire engines, called from all the outlying districts by the general alarm rung in by the assistants of the dead chief.

CHINESE IN DELIRIUM OF FRIGHT.

On Portsmouth square the panic was beyond description. This, the old plaza, about which the early city was built, was bordered by Chinatown, by Italian district, and by the Barbary coast, a lower tenderloin. A spur of the quake ran up the hill upon which Chinatown was situated and shook down part of the crazy little buildings on the southern edge. It tore down, too, some of the Italian tenements. The rush to Portsmouth square went on almost unchecked by the police, who had more business elsewhere.



Home of Wealth Destroyed in San Francisco.

The Chinese came out of the underground burrows like rats and tumbled into the square, beating such gongs and playing such noise instruments as they had snatched up. They were met on the other side by the refugees of the Italian quarter. The panic became a madness.

At least two Chinamen were taken to the morgue dead of knife wounds, given for no other reason, it seems, than the madness of panic.

FOUR RACES IN MAD PANIC.

There were 10,000 Chinese in the quarter, and there were thousands of Italians, Spaniards and Mexicans on the other side. It seemed as though every one of these, together with the riffraff of the Barbary coast, made for that one block of open land.

The two uncontrolled streams met in the center of the square and piled up on the edges. There they fought all the morning until some regulars restored order with their bayonets.

Then, as the dawn broke and the lower city began to be overhung with the smoke of burning buildings, there came a back eddy. Cabmen, hackmen, drivers of express wagons and trucks, hired at enormous prices, began carting away from the lower city the valuables of the hotels, which saw their doom in the fires which were breaking out everywhere and the spurts of the gas mains.

Even the banks began to take out their bullion and securities, and, under guard of half-dressed clerks, to send them to the hills, whence came today the salvation of San Francisco. One old night hawk cab, driven by a cabman white with terror, carried more than a million dollars in currency and securities.

HUMAN RATS BEGIN WORK.

Men, pulling corpses or broken people from fallen buildings, stopped to curse these processions as they passed. Many times a line of wagons and cabs would run on to an impassable barrier of débris, where some building had fallen into the street, and would pile up until the guards cleared a way through the streets.

And then the vandals formed and went to work. Routed out from the dens along the wharves, the rats of the San Francisco water front, the drifters who have reached the back eddy of European civilization, crawled out and began to plunder.

Early in the day a policeman caught one of these men creeping through the window of a small bank on Montgomery street and shot him dead. But the police were keeping fire lines, beating back overzealous rescuers from the fallen houses and the burning blocks, and for a time these men plundered at will.

TROOPS ORDERED TO KILL THIEVES.

News of this development was carried early to Mayor Schmitz, and it was this as much as anything which determined him when Gen. Funston came over on the double quick with the whole garrison of the Presidio to put the city under martial law.

Orders were issued to the troops to shoot any one caught in the act of looting, and the same orders were issued to the First Regiment, National Guard, of California when they were mustered and called out later in the day.

And all this time, and clear up until noon, the earth was shaking with little tremors, many of which brought down walls and chimneys. At each of these tremors rescuers, and even the firemen, would stop for a moment, paralyzed. The 8 o'clock shock, the heaviest after the big one, drove even those who had determined to stay by the stricken city to look for a means of escape by water.

WILD RUSH FOR FERRIES.

There are only two ways out of San Francisco, one is by rail to the south and down the Santa Clara valley; the other is by water to Oakland, the overland terminal. Most of the Californians, trying to get out of the quaking, dangerous city, made by instinct for the ferry, since they knew that the shocks always travel heavily to the south, down the Santa Clara valley.

As for the easterners, they had come by ferry and they started to get out by ferry. But when the half-dressed people, carrying the ridiculous bundles snatched up in time of panic, reached Montgomery street, they found their way blocked by ten blocks of fire.

They piled up on the edge of this district fighting with the police, who held them back and turned them again toward the hills. They must stay in the city. If it went, they went with it.

The troops ended their last hope of getting out of town. So great had been the disorder that, as afternoon came on and the earth seemed to be quieting down, they enforced strict laws against movement.

TROOPS STOP RUN ON BANKS.

This stopped a strange feature of the disaster—a run on the banks by people who wanted to get out their money and go. All the morning lines of disheveled men had been standing in line before the banks on Montgomery and Sansome streets, ignoring the smoke and flying brands and beating at the doors. The troops drove these away; and the banks went on with their work of getting out the valuables.

There is an open park opposite the city hall. Here, in default of a building, the board of supervisors met and formed, together with fifty substantial citizens whom they had gathered together, a committee of safety.

The police and the troops, working admirably together, passed the word that the dead and injured should be brought to Mechanics' pavilion, since the hospitals and morgue had become choked; and toward that point, in the early forenoon, the drays, express wagons, and hacks impressed as temporary ambulances, took their course.

There were perhaps 400 injured people, many of them terribly mangled, laid out on the floor before noon. Nearly every physician in the city volunteered; and they got together enough trained nurses to do the work.

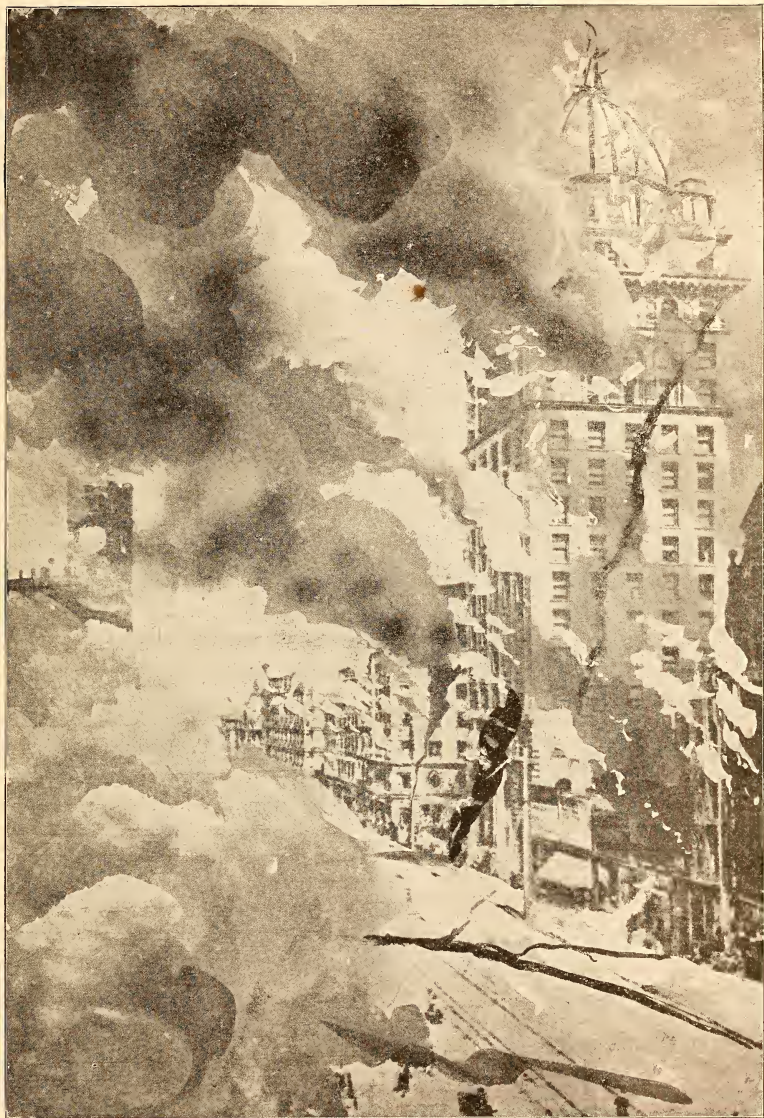
There were fewer corpses; too busy were the forces of order in stopping the conflagration and caring for the living to care for the dead.

One of the first wagons to arrive, however, brought a whole family—father, mother and three children—all dead except the baby, who had a terrible cut across its forehead and a broken arm. These had been dragged out from the ruins of their home on the water front.

A large consignment of bodies, mostly of workmen, came from a small hotel on Eddy street, through whose roof there fell the entire upper structure of a tall building next door. It made kindling wood of the two upper floors of the lodging house, which itself stood. Men from neighboring houses, running along the streets, heard the cries and groans from this house and ran in. They reached the second floor, and through a hole in the ceiling there tumbled a man horribly mangled about the head, who lay where he had fallen and died at their feet.



SAN FRANCISCO HALL OF JUSTICE.



The Call Building on Fire After the Earthquake.

CHAPTER II.

"SAN FRANCISCO THE BEAUTIFUL."

Metropolis of the Pacific—Jewel of the Golden Gate—Built On Hills Like Rome—Kipling's View of 'Frisco—Earthquakes Not Far from Uncommon—How Chinese Residents Viewed Past Disturbances—Mark Twain Tells of Quake He Witnessed.

"And there were voices and thunders and lightnings; and there was a great earthquake, such as was not since men were upon the earth, so mighty an earthquake and so great."—Rev., 16: 18.

San Francisco, metropolis of the Pacific coast, is one of the most picturesque cities on the American continent. With its background of the Golden Gate, with its hills rising from a water front teeming with oriental shipping, with its subtropical vegetation, with its skyscrapers and its lingering structures of the days of '49, and with its commingled flavor of eastern and western civilizations it is a city of remarkable interest.

The city is built on the hills which crown the peninsula inclosing the southern part of the bay of San Francisco. On one side is the Pacific ocean and on the other the bay. Viewed from the summit of the tallest buildings, the city is seen to be divided naturally into three parts.

Along the water front rise the masts of ships, bordered by huge warehouses. Farther back from the docks was located the business section of the city, and still farther out on the slopes of a dozen hills encircling the city were the residence quarters.

MARKET STREET MAGNIFICENT.

Market street is the main thoroughfare of the city. It begins at the bay and extends southwest three miles. Along this street or close by were located the principal buildings.

It is to San Francisco what State street is to Chicago and Broadway to New York. Kearney and Montgomery streets to a lesser degree shared the bustle of the city with Market street. The corner of Third, Kearney and Geary streets was a busy intersection.

The center about which the business life of San Francisco revolved was Union square, with its statue and flower beds. Here on one side rose the St. Francis hotel, the most magnificent hostelry in the city. It was built in the modern skyscraper style and was sixteen stories high. The Palace hotel, because of its association with the early life of the city, was perhaps the best known hotel on the Pacific coast.

One of the most imposing structures in the town was the city hall, one of the largest buildings of its kind in the country. The elevation of the dome was 450 feet and the cost of the building was \$6,000,000. Other large

buildings in the business section were the Hall of Justice on Portsmouth square, the Mutual Bank building, the Pacific Mutual Life, the Callaghan building, the Call, Chronicle, and Examiner buildings, all laid in ruins.

REMINDERS OF PIONEER DAYS.

It was in the business section that the evolution of the town from the frontier village of the era of '49 was most picturesquely illustrated. Surrounding the up to date hotels and tall office buildings were to be seen frame and brick structures, the architecture of which was suggestive of the mining camp. Every year saw some of these old time buildings demolished to make way for metropolitan structures.

From the business section an up to date trolley car system radiated through the residence district. In a few streets, however, particularly those mounting steep hills, the cable was retained, as it was said to be more effective than electricity on steep grades.

To the west of the city, overlooking the Golden Gate, and sheltered by the hills on the south, lies Golden Gate park, a tract of more than 1,000 acres. With its luxurious semi-tropical verdure, its deer park, Japanese teahouse, and prospect from Strawberry hill this great pleasure ground has become one of the famous parks of the world.

MECCA OF THE GOLD SEEKERS.

San Francisco, which in 1900 had a population of 355,000, has passed through many stages of development since the name meant but a rude clump of Spanish dwellings and Indian tepees in 1839. It was considerably more in 1850—the goal of thousands of gold seekers and adventurers, a city of temporary dwellings and “shacks.”

But to have seen the city on the day before the disaster one would not have recognized the wild, picturesque village of the early '50s. The substantial buildings and the civic pride of the citizens were the result of a half century of growth.

The real history of San Francisco as a city dates from the day in 1850 when California was admitted to the union as a state. There are still some who remember the big celebration on the plaza, around which the city has since grown to its present proportions. They still tell of the firing of the new federal salute at sunrise, of the huge procession which formed there a few hours later and marched about the “city,” of the thirty-one guns fired at the close of the literary exercises at sunset, and of the dance which lasted until the sun warned the revelers of the coming of another day.

TRIBUTE FROM RUDYARD KIPLING.

Rudyard Kipling said, after his visit to San Francisco, that it was “a mad city made up of insane men and beautiful women.” The opinion was

that of a man suddenly taken from the slothful life of India and placed in the hurry-scurry town where the climate spurred one to renewed activity.

In 1875 the city prided itself upon the fact that two steamship lines left the Golden Gate regularly for foreign parts. Twenty years later another steamship line was added to the list and the rapid growth of the importance of the city's foreign business could not be overestimated by its officials. But when, a few years ago, more than a dozen transportation companies vied with each other for the city's marine business, San Francisco had ceased to wonder.

With the opening of important trading posts in Japan, China and other oriental points, the city reaped the benefits and business boomed correspondingly.

EARTHQUAKES FAR FROM UNCOMMON.

Although the earthquake that wrought such awful havoc on April 18 was the worst that ever occurred on the Pacific coast, the city has been visited by seismic shocks several times. The last severe shock took place in June, 1897, when the city was thrown into a state of panic by a series of upheavals.

Many of the buildings in San Francisco showed the effects of the earthquake and while no actual loss of life was reported, considerable damage to property occurred and many people were injured.

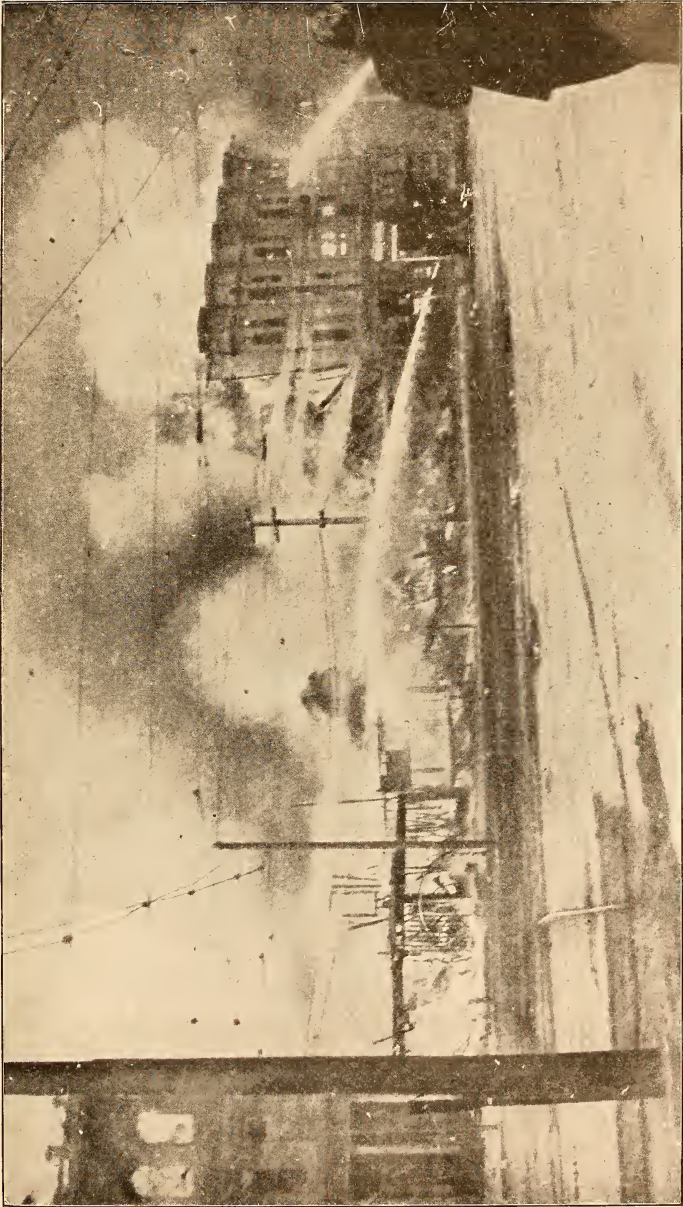
For several days a more severe shock was anticipated and work was suspended in factories and stores and the public schools were dismissed. The disturbance took place on Sunday at the hour when churches were holding services and many worshipers were injured while trying to escape from the rocking buildings.

CHINATOWN THROWN IN TERROR.

The panic was at its worst in Chinatown, where the Celestials were thrown into a frenzy of fear. For days the streets were filled by Chinamen offering sacrifices to the wicked god who was supposed to be trying to destroy the world.

The Chinese believe that the center of the earth is inhabited by a giant dragon, who must be appeased by offerings and prayer. His burning breath escaping from the interior of the earth is supposed to cause volcanoes, and when he moves about the earth trembles. There is an old Chinese tradition to the effect that some day the earth will be destroyed by the wicked earth dragon, and whenever an earthquake occurs they believe that the monster is not satisfied with the offerings made to him and is making preparations to come forth and sweep mankind from the earth.

They believe that the only way that this tragedy can be averted is by a wholesale burning of incense and "joss" paper. At the time of the last earthquake in San Francisco this strange belief caused many of the denizens of Chinatown to go insane with fear and many strange scenes took place.



Desperate Attempts to Stop the Flames.

At the first shock the Chinamen ran into the streets beating their breasts and shouting incantations at the top of their voices, but they soon settled down to the serious work of appeasing the wicked dragon. Washington square, on Kearney street, was filled with a horde of jabbering Celestials burning their offerings.

SEEK TO PROPITIATE DEMON.

Immense bonfires were built in the square and on Dupont street and valuables of all descriptions were thrown into the flames. Fine ebony furniture, imported at great cost from China, beautiful embroidered silk hangings, and clothing, and bales of spices were fed to the flames with reckless disregard of their value.

In Woo Tung alley, where the headquarters of the famous Tongs, or highbinder societies are situated, the demonstration took another form. The pavement was torn up and in a few minutes a deep hole was excavated in the street. Into this hole valuable goods of all kinds were dumped and even sacks of silver coins were emptied in the hope that the great earth dragon would be persuaded to stay in his underground home.

In all the streets throughout the Chinese district thousands of the frenzied orientals could be seen kneeling hour after hour chanting their prayers at the top of their voices and beating their heads on the pavement.

THROWN IN FRENZY OF FEAR.

When the police tried to interfere and prevent the building of fires a riot took place, and it was soon seen that any attempts to control the mad-dened Chinamen would be foolish, so the officers withdrew.

The panic in Chinatown continued during the night and part of the next day, until persuaded by the fact that the earth had ceased to tremble the Celestials put a stop to their orgie of sacrifice.

SCENE BECOMES BATTLE.

An amusing scene then took place. The Chinamen who had been eager to destroy their property the night before, seemed determined to reclaim their valuables from the evil dragon, and the big hole in Woo Tung alley became the scene of a pitched battle, as those who had buried their offerings there fought to regain them. It became necessary to call in a squad of police to settle the disputes.

While these strange scenes were being enacted in Chinatown, another panic of a different nature was taking place across the bay in Oakland. The shock was more severe in Oakland than in San Francisco, but fortunately the business houses were deserted, and no lives were lost. A number of buildings were warped and damaged by the upheaval, and they afterward were condemned and torn down.

QUAKES FELT OVER BIG TERRITORY.

The earthquake of 1897 was felt from northern California to southern Mexico. The shock was more severe in the south than in San Francisco, and Tehuantepec, a city in Mexico of several thousand inhabitants, was destroyed.

The Pacific coast has been so frequently visited by earthquakes that it was deemed unwise, until a few years ago, to erect tall buildings in San Francisco. It was only with the advent of modern steel construction, which was believed to render tall buildings safe from the earth's tremors, that skyscrapers made their appearance on the Pacific coast.

The last earthquake that occurred in San Francisco was about the middle of January, 1900. Several distinct shocks were felt early in the morning, causing the vibration of buildings all over the city. The chief building affected was the St. Nicholas hotel, which was severely shaken. The walls collapsed in certain parts of the structure, patrons were thrown out of their beds, and furniture was destroyed.

It has been noticed before that nearly every seismic disturbance on the Pacific coast has been preceded by more or less violent disturbances or volcanic eruptions in the south seas or near Japan or Australia, and the shocks of April 18 would seem to have, as their precursors the recent disturbances at Formosa.

A man named Cricksor once prophesied that San Francisco, Oakland, Chicago and New York would be destroyed by earthquake on April 14, 1890. The approach of this date caused a wild panic in San Francisco, and early in April real estate values actually suffered serious depreciation as a result, and many timid people left the city. The date came, however, and nothing happened.

MARK TWAIN TELLS HIS EXPERIENCE.

Mark Twain tells of an earthquake he witnessed in San Francisco many years ago. He describes the affair in "Roughing It": "It was just after noon on a bright October day. I was coming down Third street. The only objects in motion anywhere in sight in that thickly built and populous quarter were a man in a buggy behind me and a street car wending slowly up a cross street. Otherwise all was solitude and a sabbath stillness. As I turned a corner around a frame house there was a rattle and jar, and it occurred to me that here was an 'item'—no doubt a fight in that house. Before I could turn and seek the door there came a really terrific shock; the ground seemed to roll under me in waves, interrupted by a violent jogging up and down, and there was a heavy grinding noise, as of brick houses rubbing together. I fell up against the frame house and hurt my elbow. I knew what it was now, and, from mere reportorial instinct, nothing else, took out my watch and noted the time of day; at that moment a third and still severer shock came, and as I reeled about on the pavement trying to keep my footing I saw a sight.

BIG BUILDING SPRAWLS OUT.

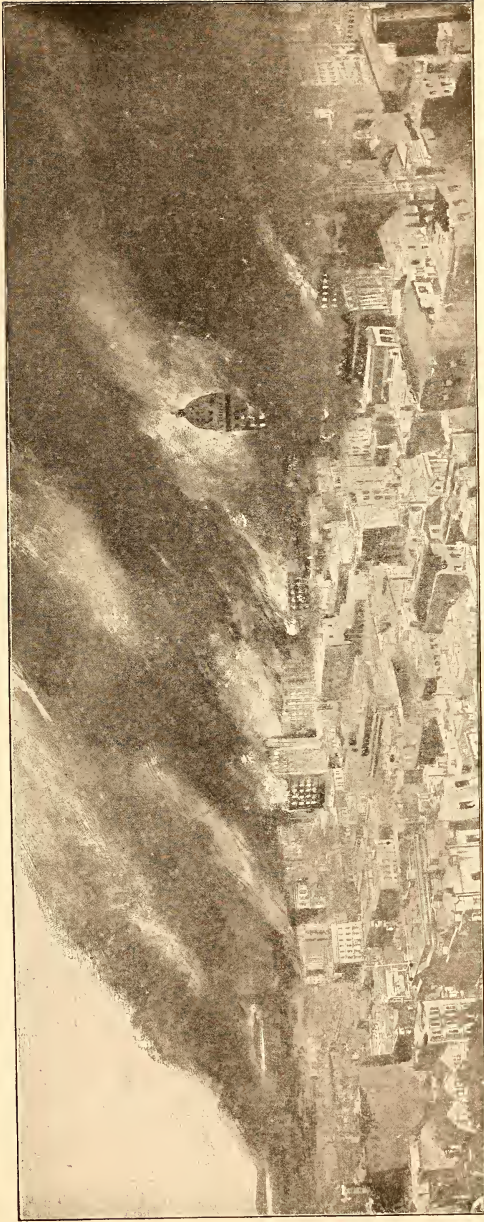
"The entire front of a tall, four-story brick building in Third street sprung outward like a door and fell sprawling across the street, raising a dust like a great volume of smoke. And here came the buggy—overboard went the man, and, in less time than I can tell it, the vehicle was distributed in small fragments along 300 yards of street. One could have fancied that somebody had fired a charge of chair-rounds and rags down the thoroughfare.

"The street car had stopped, the horses were rearing and plunging, the passengers were pouring out at both ends and one fat man had crashed halfway through a glass window on one side of the car, got wedged fast and was squirming and screaming like an impaled madman. Every door of every house as far as the eye could reach was vomiting a stream of human beings, and almost before one could execute a wink and begin another there was a massed multitude of people stretching in endless procession down every street my position commanded. Never was solemn solitude turned into teeming life quicker.

SOME AMAZING SIGHTS SEEN.

"The curiosities of the earthquake were simply endless. Gentlemen and ladies who were sick, or were taking a siesta, or had dissipated till a late hour and were making up lost sleep, thronged into the streets in all sorts of queer apparel and some without any at all. One woman, who had been washing a naked child, ran down the street holding it by the ankles, as if it had been a dressed turkey. Prominent citizens, who were supposed to keep the sabbath strictly, rushed out of saloons in their shirt sleeves, with billiard cues in their hands. Dozens of men with necks swathed in napkins rushed from barber shops, lathered to the eyes or with one cheek clean shaved and the other still bearing a hairy stubble.

"A crack 100 feet long gaped open six inches wide in the middle of one street and then shut together again with such force as to ridge up the meeting earth like a slender grave. A lady sitting in her rocking and quaking parlor saw the wall part at the ceiling, open and shut twice, like a mouth, and then drop the end of a brick on the floor, like a tooth. She was a woman easily disgusted with foolishness and she arose and went out of there. Suspended pictures were thrown down, but oftener still they were whirled completely around with their faces to the wall. Thousands of people were made so seasick by the rolling and pitching of floors and streets that they were weak and bedridden for hours and some few even for days afterward."



The Fire at Its Height.

CHAPTER III.

PERSONAL EXPERIENCES OF SURVIVORS.

Albert H. Gould's Harrowing Recital—Crash Like the Roll of Thunder as Giant Buildings Totter to the Ground—Flight Through Darkness—Naked Women and Children Trampled in the Streets—J. H. Ritter, of Houston, Fights Way Through Fire Line—Two Hours of Madness—George F. Williams Makes Way Through Funeral Pyres—Death Preferable—Miss Agnes Zink Sees Hundreds Perish

Watch therefore for ye know neither the day nor the hour wherein the Son of Man cometh.—Matt. 25: 13.

S. B. Hopkins, conductor for the Judson Tourist Company, with offices in the Marquette building, Chicago, was a guest at the Netherlands. He said:

"I had been in two small earthquakes before, one at Los Angeles and the other in Frisco, and knew when I felt the Netherlands hotel building rock what had happened. When I awoke I found my bed had moved across the floor and that a dresser in the room had moved out from the wall. A great deal of the plastering had fallen, but there appeared to be no cracks in the walls. Raising the curtain, I looked out and in the dim light of the dawn could not perceive that any buildings in the vicinity had fallen.

"I dressed hurriedly and hastened to the ground floor of the hotel. Before leaving the sixth story I turned a faucet in a wash basin, but found that there was no water. I turned on the electric light as soon as I got out of bed and it burned very feebly for a few minutes and then went out.

"On reaching the sidewalk with my grips I found that every one else was leaving not only the Netherlands but every other building in the vicinity, headed for the ferry with a view to escaping from the doomed city. I offered any price for a hack or an automobile, but could find none that was not already engaged until I had walked several blocks when I saw a hack in which were three women hurrying to the Oakland ferry.

"I managed to induce the driver to take one more passenger and, mounting the box with the grips beneath my feet, I was soon hastening as fast as the cab horses could hurry toward the water front and the chance to leave San Francisco."

BIG BREWER TELLS EXPERIENCES.

Adolphus Busch, president of the Anheuser-Busch Brewing Company of St. Louis, was in the St. Francis hotel when the first shock came and he remained in the doomed city until Thursday morning, when he was compelled to leave by the lack of food and water. Mr. Busch describes the earthquake and the events subsequent thereto very graphically.

"We were all asleep in our rooms when the first shock came," he said. "Almost immediately the electric lights went out and when we went to the elevator to descend from the tenth floor, on which our rooms were located, we found that it had been damaged by the earthquake and could not be oper-

ated. I was surprised at the coolness and presence of mind displayed by every one in the great emergency.

"We remained in the hotel until 6 o'clock in the evening, when the advancing flames drove us out. I secured two carriages and we moved to Nob hill, where we stayed until Thursday morning, when we went to the ferry and fortunately caught a boat which was just entering the slip. Mrs. Busch was with me and there were twelve persons altogether in the party.

"After I secured the carriages we never left them alone for fear some one else would take them when we were gone. We left at least two persons with each carriage whenever we wandered away from them for a time. When we reached the ferry at the foot of Market street we were permitted to drive right on board the boat, much to our relief, as we were by this time very anxious to get out of San Francisco.

MILLIONAIRE GOES WITHOUT FOOD.

"When we left the ferry at Oakland I discovered that my private car was not there and it was not until ten minutes before the time for our train to start that it put in an appearance. Much to my sorrow, I found that it contained no provisions, and we were compelled to start on our journey sustained by what we had been able to get to eat in Oakland. I telegraphed ahead to Sacramento and on our arrival there we replenished our commissary and we had plenty to eat from then on.

"During our stay on Nob hill we were sixteen hours without anything to eat or drink and in this we suffered only as others suffered. While we were on the hill we saw the St. Francis destroyed by fire and witnessed the ruination of many houses under the order of General Funston in a vain attempt to stop the spread of the flames.

"Less than one-fourth of the city escaped from the combined ravages of earthquake and fire. All of the wholesale houses and most of the retail houses of the city were heaps of ruins and in the flames perished art galleries filled with priceless treasures that money cannot replace, public buildings, school houses and great hotels. San Francisco was indeed wiped out of existence.

"As we drove through the streets on our way from the St. Francis to Nob hill we passed streets that were utterly impassable because of the piles of brick and stone that filled them from the ruined buildings on either hand and in many places one side of the street had fallen in to a depth of two feet, while the opposite side had been elevated to a corresponding height by the violent movement of the earth.

"The earthquake did the greatest damage to the brick and stone buildings. The steel structures stood the shock nobly and had it not been for the fire that followed immediately on the heels of the earthquake I believe the steel buildings could have been repaired at very little expense. For twenty-four hours we felt slight earthquake shocks at frequent intervals after the first and most serious shock."

NAVAL STATION SUFFERS.

"I was visiting the home of Lieutenant and Mrs. Graham at Mare Island," said Mrs. William Winder, the wife of Capt. Winder of the navy, who lives in Erie, Pa. "Shortly after 5 o'clock Wednesday morning the house seemed to have been seized in the jaws of a giant terrier and shaken like a rat. The crockery was smashed and every bit of bric-à-brac shattered. The house rocked and swayed so that the pieces of broken things flew about over the floor as if they were alive.

"In an instant every one in the house was up. The maids came running down the halls in their night clothes screaming and crying to be saved. Lieutenant Graham did his best to calm everybody, explaining that the house had been built to withstand earthquake shocks. It was almost impossible to stand upright on the floors.

"Everything groaned and creaked ominously. Pieces of plaster and even splinters of hard wood flew off the walls and shot across the rooms like shots. Everybody was ordered to dress and prepare to leave the house. Then the disturbance subsided with a terrific wrench as its concluding manifestation.

"Half a dozen buildings not far away crashed down. The majority were twisted. I do not believe there is a whole teacup or any other sort of crockery left on Mare Island. The streets were littered with debris from falling cornices and parts of walls. If we had had tall buildings like San Francisco the loss of life would have been terrific. The shock was as severely felt as across the bay.

"Immediately after the subsidence of the first shock we could see that something terrible had happened in San Francisco. Great dark columns rose in the air. It could not have been smoke then. It was dust from fallen buildings, I think.

"CITY ON FIRE—SEND AID."

"Then the wireless telegraph station nearby began taking a message from San Francisco. The first one was:

"'Earthquake—town on fire—send marines and tugs.'

"In an instant the well trained men of the marines were doing each one what he had been taught to do in an emergency. There was no hurrying, apparently, but in an inconceivably short space of time 200 men were off with a flotilla of tugs following them.

"Soon the rumbling and queer groaning that seemed to come from beneath our feet gave way to another tremor of the ground that made everybody jig. Then came the second actual upheaval.

"A second message came from across the bay by wireless. It said:

"'All wires down—half town destroyed—fires raging everywhere. More help.'

"Over in San Francisco the flames were mounting from scores of places. I went over the bay on a tug with officers who were directing the work of rescue. As we drew near to San Francisco we saw the beautiful city was



The City Hall Ruins.

doomed. Great clouds of dust hovered over everything. These were punctuated at intervals by great tongues of flame that shot out from the tall buildings.

"Every few minutes there was a crash of dynamite and some new dust cloud rose to mark the spot where the explosion had occurred.

HIGH WHINING SOUND HEARD.

"Over and above everything there was a high pitched whining sound in the air. A man told me he once heard the same sort of sound preceding a cyclone.

"As soon as possible Lieutenant Graham made me go on board a launch and took me over to Oakland in the effort to make a train. I caught it and escaped, so I do not really know how badly Mare Island suffered in the disaster.

"As we passed through Santa Rosa we could see that the town was in ruins. Up to the time that I left the flashes of the wireless continually announced the condition in the stricken city across the bay. One message read:

"'Hundreds are dead—fire beyond control—martial law.'

"Another message read:

"'Fire department helpless—no water. Business center doomed.'

"As to the damage in other places it seemed that all along the coast every town had been practically annihilated."

FUGITIVES STAINED WITH BLOOD.

Mrs. Herman Crech, of Chestnut street, Philadelphia, gave one of the most striking accounts of the scene following the disaster. Mrs. Crech was on the third floor at the Terminus Hotel when the walls began to collapse and she reached the street clad only in her night robe.

"I was so frightened I didn't care at all about clothes," said Mrs. Crech. "Just outside I bumped into an old gentleman who took off his coat and put it on me. He had nothing on beneath the coat but pajamas and they were stained with blood. He had a bad cut in the back of his head and the blood had been running down under his coat. I tried to make him take the coat back, but he would not.

"Just then some women began screaming and the street rose right up under my feet.

"When I got to the corner hundreds of rats came out of the basement. At least they all seemed to come from the same place and all were going toward the water front as fast as they could scurry. I never saw so many rats before in my life.

"A man named Zimmer, who told me he was in business on Market street, helped me through the debris and the sputtering electric light wires. The place was a regular inferno. spurts of flame were shooting out of the windows of

buildings that did not seem to have been touched at all by the earthquake. Fires seemed to spring up everywhere without cause.

"Window sills on the second story of a building that seemed otherwise intact shot straight out from the walls and landed half way across the street. All these stones seemed to have been pinched out and propelled forward at the same instant.

STREETS ALIVE WITH WOMEN.

"In five minutes after the first terrible wrench the streets were alive with crying, half-clad women and children. I saw one poor woman trying to carry three children and offering a purse full of money to anyone who would take her and the babies safe to the ferry.

"She had \$1,000 in the purse, she said. The poor creature was clad only in a nightgown and her long black hair almost reached the ground.

"My feet were bare and cut with broken glass. Mr. Zimmer cut the sleeves from his coat, wrapped them about my feet and tied them on with the laces from his own shoes. Then we shuffled on. Every street we tried to pass through was blocked with debris. Everywhere were people bloody and battered.

"I saw a woman who had lost her husband and child somewhere in the confusion sitting on the edge of the curb and laughing. At that instant the middle of the road sank four or five feet in one terrible slump. Still the woman laughed. I hope she found her people, poor soul.

"At last we found a way to the waterfront. There were lots of tugs about, but everybody with money was trying to charter them. We were taken off at last by some of the sailors from Mare Island."

TERRIFIC SHOCKS IN BERKELEY.

J. W. Rumbough gave a vivid description of his escape. For six hours young Rumbough toured the city of Berkeley, directly across the bay from San Francisco, and assisted the panic-stricken fugitives to land from the ferryboats on the Oakland side of the bay. Following is Rumbough's own story of the disaster:

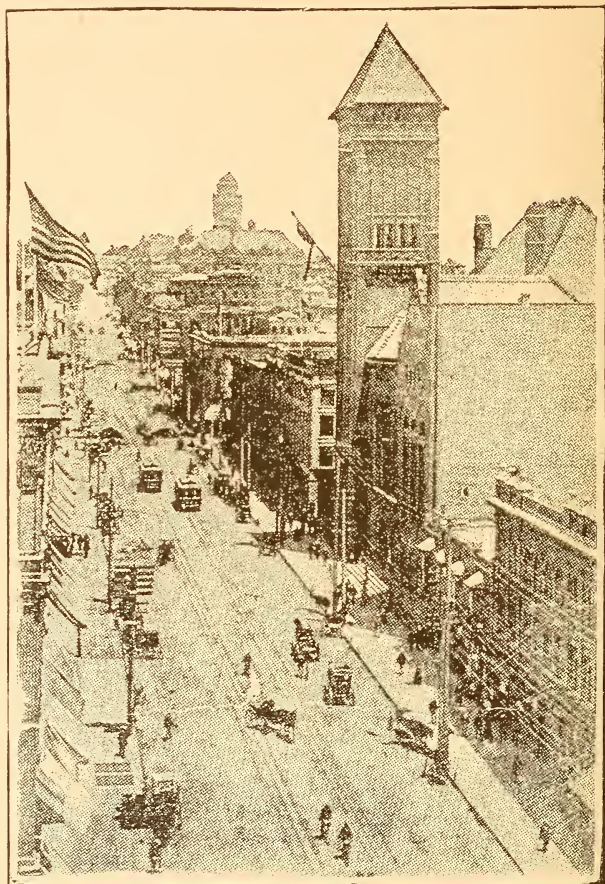
"I was awake in bed in one of the fraternity halls when the shock came. Preceding the shock there was a low, rumbling noise, which first sounded like distant thunder. The noise rapidly increased in volume until it grew to be a roar. The noise had a muffled sound.

"I have been in several earthquakes and instinctively guessed what would follow the ominous roar. The shock came about thirty seconds after the first sound. I remained in bed.

"The house began rocking like a cradle and the timbers and rafters creaked and cracked. It did not seem possible that the building could withstand the shock.

"Outside I could hear the sound of falling buildings and the rattle of glass and dishes. I looked out of the window and saw that the trees were swaying as if shaken by a great wind. A chimney directly opposite our hall was hurled from a tall building clear across the street.

"A second but lighter shock came at 8:30 o'clock. In the meantime the wildest of rumors were spread. I went to the ferries and saw boat loads of people coming across the bay. Men, women and children were utterly crazed with terror."



BROADWAY, IN LOS ANGELES, LOOKING NORTH.
This is the Principal Thoroughfare in the City.

Map of
SAN FRANCISCO
 AND THEREABOUT
Published by
 THE CALIFORNIA
 PROMOTION
 COMMITTEE
of
SAN FRANCISCO

Scale
 six miles to 1 inch



CHAPTER IV.

FAMOUS STRUCTURES SWEEP AWAY.

Famous Landmarks Destroyed—Great Monuments to San Francisco's Push and Enterprise Fall Before Quake and Fire—Mansions of Millionaires Drop Like Houses of Cards—Stanford, Huntington, Flood and Croker Homes Among the First to Go—Home of the Famous Bohemian Club No More—Grand Business Structures Consumed Like Chaff—Government Mint Escapes Seemingly by a Miracle—Homes of Great Newspapers Fall a Prey to Flames.

And suddenly there was a great earthquake, so that the foundations of the prison were shaken: and immediately all the doors were opened, and everyone's bands loosed.—Acts 16: 26.

Wiped out and gone from the face of the earth are nearly all the old landmarks of San Francisco. The earthquake and the fire did their work well, and what time had failed to do they accomplished in the twinkling of an eye.

With the famous landmarks passed away nearly all the new monuments that stood for the push and the enterprise of the California metropolis. They fell and faded before the shaking of the earth and the fiery blasts like houses of cards before a tornado.

One of the first of the old-time landmarks to go by the board after the flames began the destruction of the business district was the Palace Hotel, known the world over to travelers.

It was built in the '70s by James Ralston at a cost of \$6,000,000, and was owned by the Sharon estate. Many of San Francisco's wealthiest families made their home at the Palace, and personal losses in art treasures, etc., were great.

FLAMES SWEEP AWAY FINE MANSIONS.

The Stanford mansion, the Huntington, the Flood and the two Croker mansions were swept away. These were the handsomest private residences in San Francisco, and were built in the early days of the city's greatness by men who played important roles in the development of the Pacific coast.

Down near the business district, at Post street and Grant avenue, stood the Bohemian Club, one of the widest-known social organizations in the world.

Its membership list includes the names of many men who have achieved fame in art, literature and the commercial world. Its rooms were decorated with the works of artist-members, many of whose names are known wherever paintings are discussed. Some of these were saved.

The annual summer "jinks" of the Bohemian Club, amid sylvan scenes at Redwood Grove, was the most unique celebration known among local clubs.

On special exhibition in the "jinks" room of the Bohemian Club were a dozen paintings by the old masters, including a Rembrandt, a Diaz, a Murillo and

others, probably worth \$100,000. These paintings, which were loaned for exhibition, were lost.

The district on California street from Powell to Jones streets, known as Nob Hill, contained the most palatial homes of San Francisco. The summit of the hill is perhaps 500 feet above the sea level, and a magnificent view of San Francisco Bay and the country for many miles around can be had from that point.

FIRE DESTROYS STANFORD HOME.

At the southwest corner of California and Powell streets, just on the brink of the hill, was the residence of the late Leland Stanford. At the death of Mrs. Stanford about a year ago in Honolulu the mansion became the property of Leland Stanford University. It contained many art treasures of great value.

On the southeast corner of the same block stood the home of the late Mark Hopkins, who amassed many millions along with Stanford, C. P. Huntington and Charles Crocker in the construction of the Central Pacific Railroad from Ogden to Sacramento. The Hopkins home was presented to the University of California by his heirs, and was known as the Hopkins Art Institute.

Across California street from the Stanford and Hopkins homes was the Fairmount Hotel, which had been under construction for more than two years. It was a handsome white stone structure, seven stories high, occupying an entire block.

The land was owned by the late Senator James Fair, who was associated with John W. Mackay, James Flood and James O'Brien, all of whom amassed great fortunes in Nevada mines.

One block west of the Fairmount was the Flood home, a huge brown stone mansion, said to have cost more than \$1,000,000.

The Huntington home, which is the least pretentious of the residences of the "big four," occupied the block on California street, just west of the Flood house.

The Crocker residence, with its huge lawns and magnificent stables, was on the west of the Huntington home. Many other beautiful and costly homes were situated on the hill.

A mile further west, on Pacific Heights, were located many costly homes of recent construction.

GREAT HOSPITAL IS DYNAMITED.

The Southern Pacific Hospital, at Fourteenth and Mission streets, was dynamited, the patients having been removed to places of safety. The Linda Vista and the Pleasanton, two large family hotels on Jones street, in the better part of the city, were blown up.

Farther west on Post street stood the home of the Olympic Club, the oldest regularly organized athletic association in the United States, and famous for its appointments and for the number of athletes it has developed. The building was worth \$300,000, and its furnishings were of the finest quality. Nothing remained but a mass of steel and stone.

The great new Flood Building, built by James Flood at a cost of \$4,000,000, and occupied about a year before; the new Merchants' Exchange Building on California street, erected at a cost of \$2,500,000; the Crocker Building at Montgomery and Market streets, a \$1,000,000 structure; the Mills Building at Bush and Montgomery, costing the same sum; the new Shreve Building, at Post street and Grant avenue, costing \$2,000,000, and occupied on April 1 by the largest jewelry store on the coast, were some of the new structures destroyed. The Shreve Jewelry Company carried a stock of \$2,000,000 worth of jewelry.

FIRST SKYSCRAPER GOES TO THE GROUND.

In Market street the Phelan Building, one of the earliest attempts at a pretentious work of architecture in the business district and covering the most valuable piece of real estate in San Francisco, was one of the first to fall.

The great group of buildings standing on a piece of ground bounded by Larkin, McAllister and Grove streets, erected by the city of San Francisco at a cost of \$7,000,000 and known as the city and county buildings, was soon a mass of ruins.

The beautiful St. Francis Hotel, facing Union Square, erected at a cost of \$4,500,000 and the Fairmount Hotel at California and Powell streets, costing \$3,000,000, the most conspicuous location in the city, followed in short order.

The magnificent group of buildings at Van Ness avenue and Hayes street of the St. Ignatius College and Cathedral, probably worth \$2,000,000, and St. Dominick's Church on Steiner street near California, and the Emanuel synagogue, a handsome structure of the oriental type on Sutter street, were wiped out.

GOVERNMENT MINT SAVED FROM DESTRUCTION.

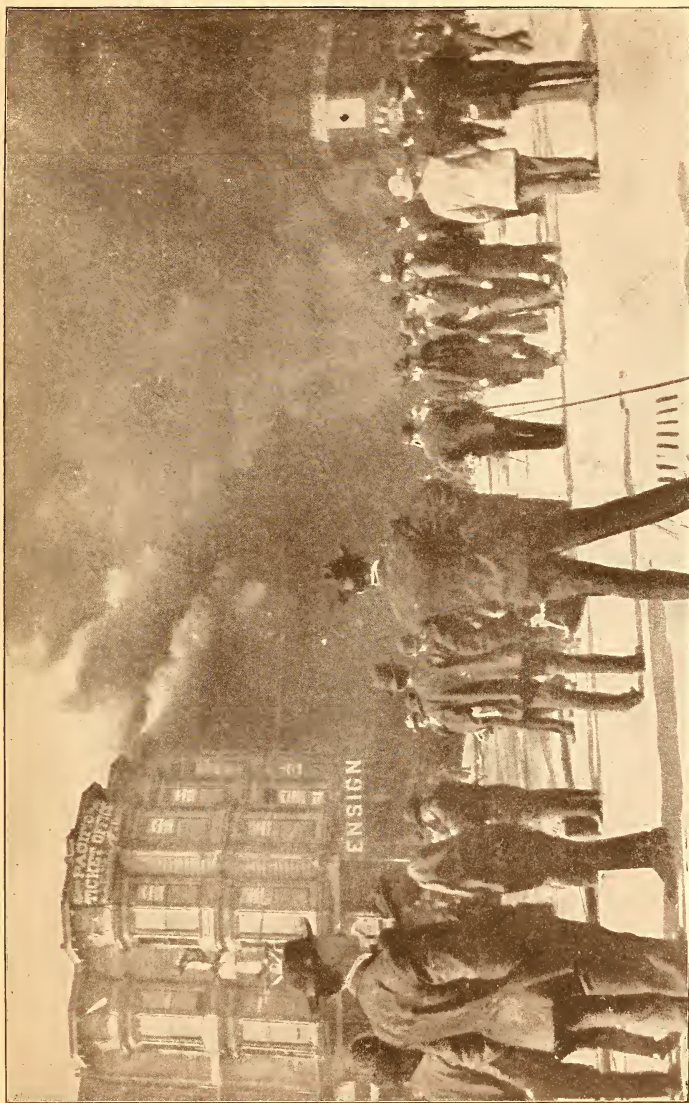
The branch United States mint, on Fifth street near Market, was not destroyed, but was damaged to a considerable extent. Its escape was due to the fact that it occupies a large square, separated from surrounding buildings by a wide paved space.

Two blocks west of the mint stood the splendid new postoffice building, finished about six months before and erected at a cost of \$2,000,000 for actual construction.

It was one of the most beautiful buildings in the United States, said to have been equaled in architectural excellence only by the new Congressional Library at Washington. It was destroyed.

Down in the older business sections were many old landmarks, but they exist no longer.

The Occidental Hotel, in Montgomery street, for years the headquarters for army officers that visited San Francisco; the old Lick House, built by the philanthropist, James Lick; the old Russ House, also on Montgomery street; the Nevada National Bank Block, the Hayward Building at California and Montgomery, a modern structure of ten stories; then to the eastward the splendid ex-



Watching a Great Fire Consume the Great City of San Francisco.

ample of the severe Gothic style, the California National Bank; the First National Bank, the First Canadian Bank of Commerce, the London and San Francisco, on California street; the London, Paris and American Bank and the Bank of British North America, on Sansom street; the large German-American Savings Bank, also on California, all were destroyed.

HOTELS AND THEATERS BURNED.

The California Hotel and Theater in Bush street, near Montgomery; the Grand Opera House in Mission street, where the Conried grand opera company had just opened for a series of three weeks' opera; the Orpheum, the Columbia, the Alcazar, the Majestic, the Central and Fisher's were some of the playhouses to which pleasure-loving San Francisco was wont to flock. All were burned.

Among the splendid apartment houses destroyed were:

In Geary street—The St. Augustine, the Alexandria, the Victoria.

In Sutter—The Pleasanton, the Aberdeen, the Waldeck, the Granada.

In Pine street—The Colonial, the Loma Vista, the Buena Vista.

In Ellis—The Dufferin, the Hamilton, the Ellis, the Royal, the Hart, the Ascot and St. Catherine.

In O'Farrell street—The Eugene, the Knox, the St. George, the Ramon, the Gotham.

In Taylor street—The Abbey.

In Eddy street—The Abbottsford.

In Turk street—The Netherlands.

In Polk street—The Savoy.

In Bush street—The Plymouth.

FAMOUS PLACES ARE NO MORE.

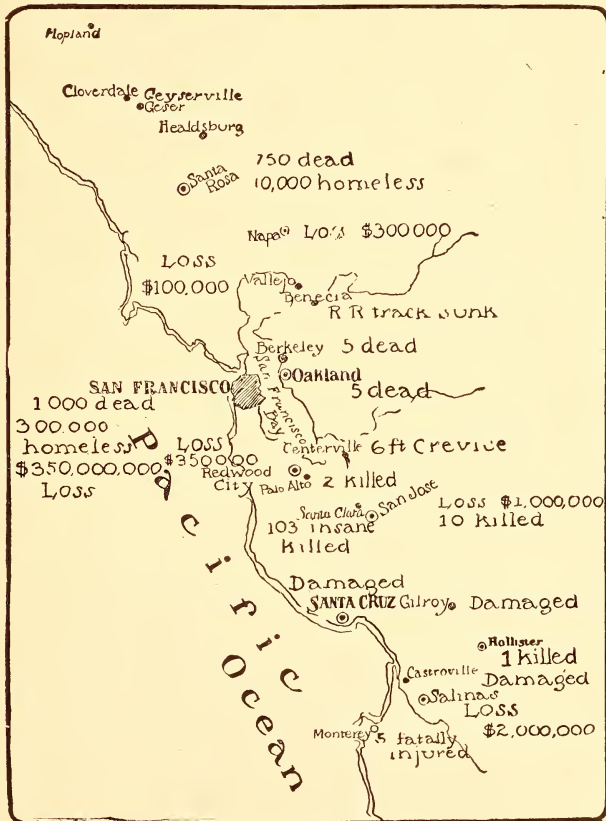
San Francisco was famous for the excellence of its restaurants. Many of these were known wherever the traveler discussed good living.

Among them were the "Pup" and Marschand's, in Stockton street; the Poodle Dog, one of the most ornate, distinctive restaurant buildings in the United States; Zinkand's and the Fiesta, on Market street; the famous Palace grill in the Palace Hotel, and scores of Bohemian resorts in the old part of San Francisco. They are no more.

At the junction of Kearney, Market and Geary streets stood the three great newspaper buildings of San Francisco—the Call, the most conspicuous structure in all the city, seventeen stories high; across the street, the Hearst Building, the home of the Examiner, and to the north of this, on the opposite side of Market street, the Chronicle, a modern ten-story newspaper and office building, with the sixteen-story annex under course of construction. All were destroyed. Two blocks north on Kearney street were the Bulletin and the Post buildings. They also are gone.

Among the mammoth department stores destroyed were the Emporium,

Hales & Fragers', on Market; on Kearney street, the White House, O'Connor & Moffatt's; Newmar. & Levinson's, Roos Brothers', Raphael's, the Hub and many lesser establishments; on Geary street, the Davis, the City of Paris, Samuel's; on Post street, Vel Strauss'; on Sansom street, Wallace's, Nathan, Dohrman & Co.'s and Bullock & Jones'.



THE CALIFORNIA EARTHQUAKE AREA.

CHAPTER V.

MANIACS KILLED BY HUNDREDS.

Maniacs Killed by Hundreds—Scenes of Horror at Agnew's State Insane Asylum, Santa Clara—Shriek in Terror in Cells—Walls Fall Under Second Shock—Aroused to Battle—Survivors Tied to Trees.

And I beheld when he had opened the sixth seal, and lo there was a great earthquake; and the sun became black as sackcloth of hair, and the moon became as blood.—Rev. 6: 12.

When one of the earthquake shocks wrecked the Agnew's State Insane Asylum, near Santa Clara, scenes of horror were enacted that froze the blood of the sane witnesses and turned the hair of many white in an hour.

Of the thousand demented beings confined in the hospital fully two-thirds had been uneasy and restless all night, seeming to feel that something unusual was transpiring deep in the earth beneath them.

Long before the tremors were felt several of the least violent patients called the nurses to them, and in hushed voices explained that the "demons of the underworld" were working hard to bring about a catastrophe.

In vain the nurses and other attendants strove to quiet the demented beings, who cried aloud that disaster and ruin was coming, simple and sure.

Just at daybreak came a long, sullen rumble, which shook the stone walls of the great asylum. Then came a second tremor.

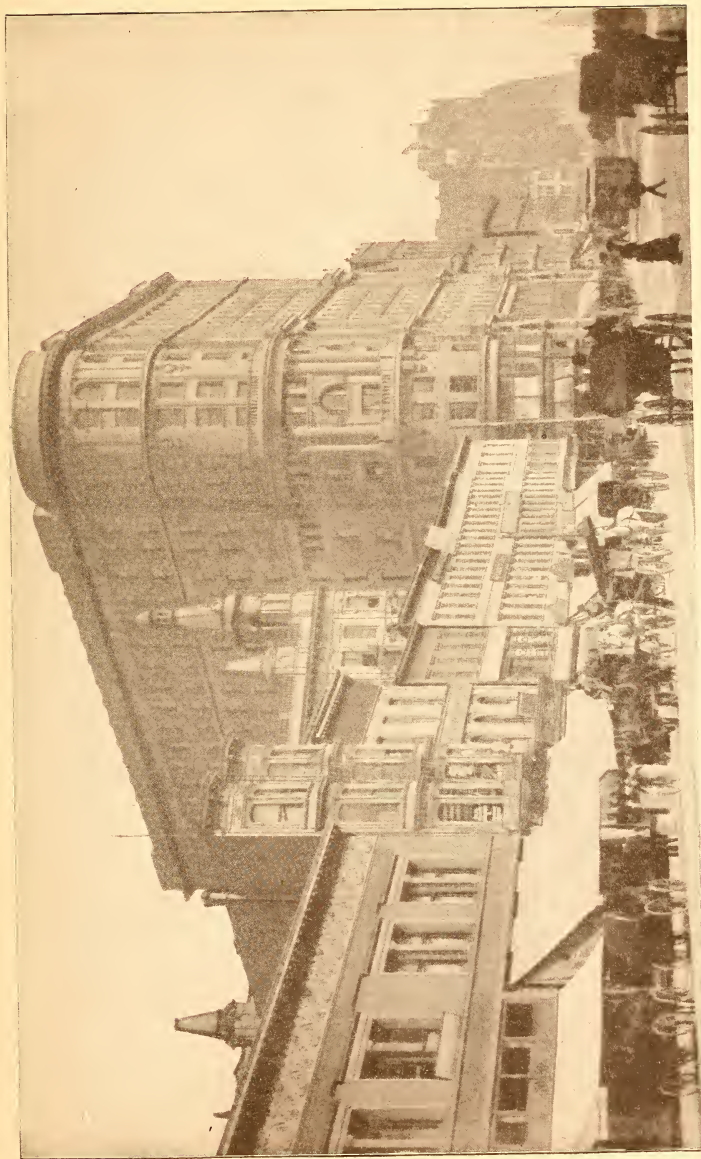
MANIACS SHRIEK IN TERROR.

High above the sudden commands and startled cries of the guards arose the shrieks of the maniacs in their cells. Wild cries and demoniac, horrible laughter rang through the building. The unfortunates whose minds were only half unsettled before were turned to raving, shouting, cursing demons in a second, and with a noise like thunder they rattled the bars of their cells and pounded on the doors until the clang was heard a mile away.

For half a minute the giant building shook, trembled and groaned; then, with a sudden wrench and shudder, the roof caved in, the walls spread apart, torn asunder as if by invisible hands, and with a crash that echoed far and wide, the building fell a heap of ruins.

From all sections of the debris arose a bedlam of cries, as the crazed, maimed and dying victims cursed and shrieked in their agony and terror. Loud and long sounded the horrifying laughter of the uninjured prisoners, mingling in a sickening way with the agonizing calls of those who still retained vestige of God-given sense.

Many of the house doctors and the nurses had been killed when the crash came. For an instant all was confusion, for there was no one to take charge and bring order from chaos.



Garden City Block and Environs, Before the Shock.

SECOND SHOCK DISRUPTS WALLS.

Suddenly a second shock disrupted the walls that still stood, and with a roar that drowned all other sounds thousands of pounds of stone and iron went crashing, thundering down on the cells which held the dead and dying.

Then it was that the attendants who had escaped with their lives regained their startled senses and began the work of restoring order.

Instantly a general alarm was sounded, and hundreds of persons from the near-by town rushed to the hospital. All of the several buildings attached to the hospital proper lay in ruins.

Rescue parties, each under a captain, were formed, and the work of rescuing the living and caring for the dead was begun. Owing to the stone from the walls having fallen on and alongside the cells in which the most violent patients were confined, crushing and mangling the iron, it was necessary to use sledges in breaking open the doors.

From the ruins were dragged the dead, and the bodies were tenderly laid on the grass some distance away, until 55 mangled corpses were visible. Each body was shockingly torn and mutilated, and in every case, almost, the head had been so badly bruised that recognition was impossible.

In the meantime other rescue parties were bringing the survivors from the ruins. With wild shrieks and loud lamentations the unfortunates tore themselves loose from their captors and sought to escape.

"I'm going to heaven in a chariot of fire!" shrieked one demented man, as he seized his captor and bore him to the ground, at the same time choking him until death was near.

"I'm going to heaven," he shouted. "Don't you hear the rumbling of the chariot wheels!"

Finally the demented man was subdued by other members of the rescue party, and bound hand and foot.

MANIACS AROUSED TO BATTLE.

The battle between the maniac and his captors had aroused the other rescued patients to frenzy, and a second later they made a dash for liberty, screaming and calling out as they ran.

They were pursued and captured. Then arose the question of what to do with them. There was no building near in which they could be confined, and as they were violent it was necessary to restrain them in some way.

"Tie them to trees," suggested one of the doctors.

Ropes were procured and in less time than it takes to tell it fully one hundred raving maniacs were again prisoners, securely bound, hand and foot, and fastened to the small trees which fill the hospital grounds.

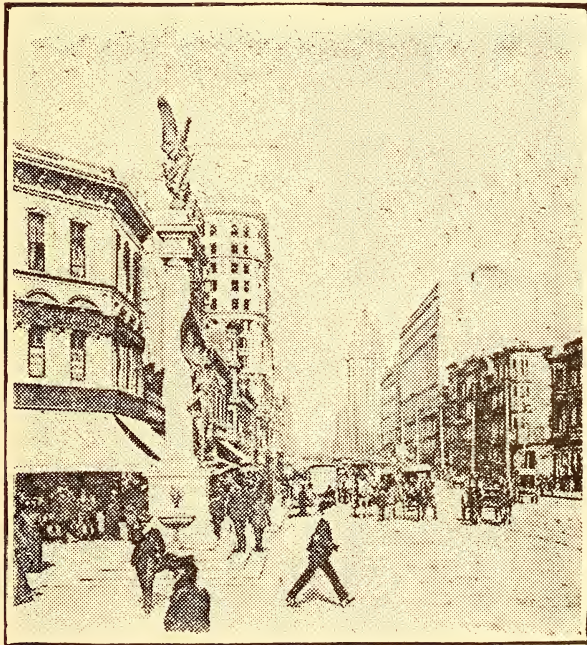
Later a temporary building was erected, in which all of the patients were cared for. The dead were buried in the cemetery on the grounds, and later search was made in the ruins and nearly 200 more bodies recovered.

It was midday before order was restored at the asylum. By that time a full force of nurses and attendants had been secured.

Two hundred and fifty-three bodies were taken out of the ruins. Official estimates placed the number of injured insane patients at 207, and of these thirty later died.

Brother De Martini, in charge of the college infirmary, did good work in giving first aid to the injured, as did Dr. Gerlache of San Jose, the county physician, who later collapsed.

Little damage was done to the building at Santa Clara College and not one of the students or priests was injured.



LOOKING UP MARKET STREET TOWARD FERRY.

In the Foreground is the California Monument, Commemorating the Admission of California to Statehood.

CHAPTER VI.

STANFORD UNIVERSITY DESTROYED.

Stanford University Laid Low—Monument of California Pioneers' Generosity—Memorial to Son—A Wonderland of Architectural Beauty—Long Struggle Over Millionaire's Estate—Faculty Faithful Through Years of Legal Strife—Noted Educator at Its Head—Near Site of Famous Palo Alto Breeding Farm—Magnificent Establishment Endowed in Perpetuity—Upheaval Wrecks All Save One Building.

For nation shall rise against nation and kingdom against kingdom, and there shall be earthquakes in divers places, and there shall be famines and troubles; these are the beginnings of sorrows.—Mark 13: 8.

The pride of California scholars and educators, as well as of the masses, Leland Stanford University, at Palo Alto, was wiped from earth in the twinkling of an eye. Of the fifteen buildings erected by the greatest endowment ever received by a school, but one was left standing when the earth tremors of a few brief moments had passed away.

With its destruction also passed out human lives, Junius Brutus Hanna, of Bradford, Pa., a student, and Otto Gurts, fireman, paying the toll. The monetary loss was \$2,225,000.

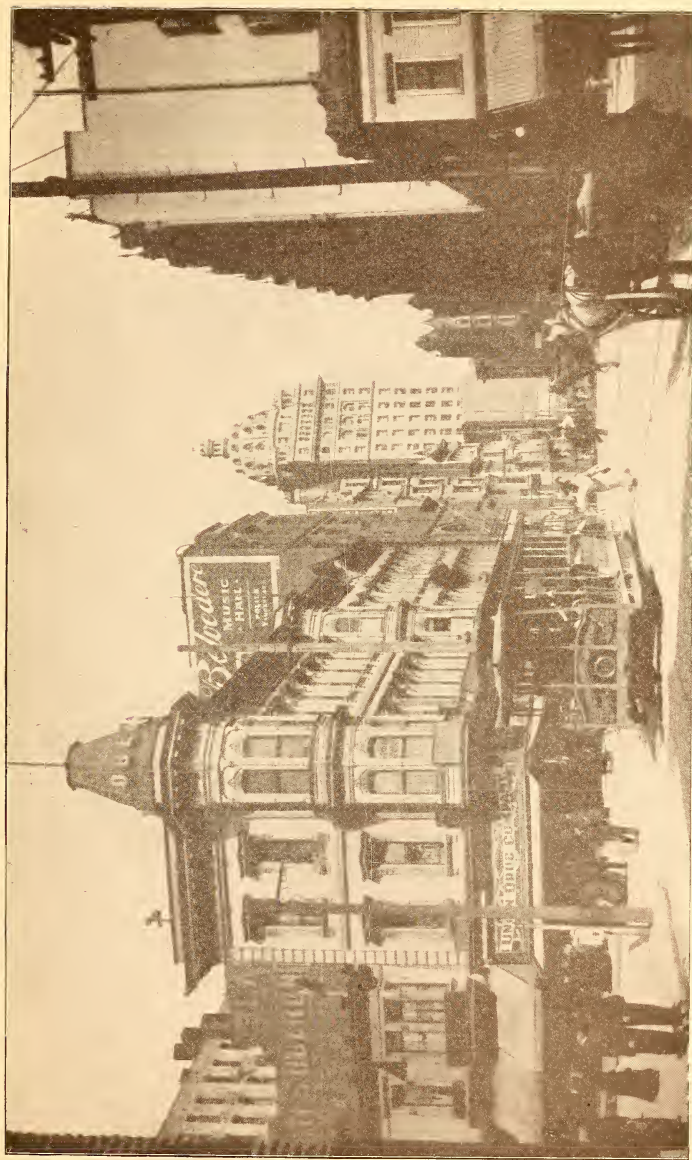
The university was the monument of Leland Stanford, Jr., erected by the millionaire senator and pioneer of California. Young Stanford was the only child and idolized by his father, and his death was the one great grief of his parents. At the time of the death of young Stanford the parents were in Europe, and their return was awaited in California with great interest because of the belief that it meant the endowment of some great institution with their vast wealth. Endowment of the school is said to have been the young man's suggestion.

CORNER STONE LAID IN 1884.

This took place in 1884, and two years later the first corner stone of the institution at Palo Alto, Cal., was laid. Prior to that the State Legislature of California had authorized the establishment of the university along lines that were afterward almost literally followed out.

Such was the beginning of the institution which today has an endowment of almost \$30,000,000. From the fact that the almost limitless wealth of Leland Stanford was behind the institution, it seemed that there could be nothing but instantaneous success ahead. Fortunately for the institution, however, the twenty-four trustees who had been intrusted with the management of the enterprise were calm and collected in their acts.

Instead of rushing in and spending a large part of the endowment on the immediate equipment, both in the buildings and in the faculty, they builded



Geary Street From Stockton, Showing the Call Building in the Background.

slowly and only where it was necessary. And well it is they did this, for in the suits which the United States government filed against the Stanford estate in recovery of \$15,000,000 of old, unexpired debts of the Southern Pacific railroad system, the school was in a fair way to fail. This came in the footsteps of the death of the founder in 1893 and the hard times which affected every community of the United States in the same year.

WEATHERED DANGEROUS STORM.

During the pendency of the suit the government had allowed Mrs. Leland Stanford an annuity from the estate of \$150,000, which was the amount spent by her while her husband was governor of the state. Instead of using this money for herself, Mrs. Stanford turned it over to the university so that expenses could be met. The salaries alone at that time were \$185,000 annually, and this left a deficit which had to be made up in other ways.

A decision of the United States Supreme Court of March 2, 1896, set all of this worry of failure aside by declaring against the collection of the money from the estate. It is recorded that the receipt of the telegram announcing the decision of the court was the most joyous and notable event in the history of the institution.

In all of the trouble David Starr Jordan, who had been selected as the first president of the university, from the time the doors were thrown open in 1891, stood by the institution which he had set out to establish on a firm basis. With him stood the corps of assistants. Notwithstanding the many offers, and many of them flattering ones, at largely advanced salaries, it is claimed that not a desertion was recorded in the years of hardships.

YEARS OF PROSPERITY.

Faithfulness of this kind was followed by a period of prosperity which within the next few years placed the institution on the pedestal planned for it by its founder. The original plans could now be carried out, as the property to the credit of the institution increased in value and was freed from any clouded title, such as was cast upon it by the suit of the government.

To lessen the embarrassment to which the university had been subjected through the threatened financial straits Thomas Welton Stanford, of Australia, announced that with his portion of the bequest of the Stanford estate he would erect a library building. A number of similar bequests came at this time from the Stanford family, increasing the amount of the endowment left it by the founder and given it by his widow.

NO LAND COULD BE SOLD.

In doing all of this construction work the board of trustees were authorized to use the revenue from the 85,000 acres of land conveyed to the institution, but none of the land could be sold. All this was stipulated in the grant made by Mr. Stanford when he first conceived the general outline for the university.

While the trustees had the management of the financial part of the institution, the president was authorized to carry on the management of the teaching force and to lay out the curriculum and the mode of teaching. It was stated that the object of the school was "to qualify students for personal success and direct usefulness in life." In its teachings, outlined in its relation to belief in government, it was settled that the university should be "based on the inalienable rights of man to life, liberty, and the pursuit of happiness."

RELIGIOUS BUT NOT SECTARIAN.

It was also set out that the school should teach the right and advantages of association and co-operation, in addition to "the immortality of the soul, the existence of an all wise and beneficent Creator, and that obedience to His laws is the highest duty of man." But above all of this Senator Stanford insisted that while the school must have a religious life, none of the teachings were to be sectarian. The school was likewise established as a coeducational institution.

The buildings of the university were located in an 8,000-acre tract of land about thirty miles from San Francisco. Between the university grounds and Mayfield is situated the Stanford home of Palo Alto, from which the university derives its name.

HOME OF FAMOUS HORSES.

It was at this place that the famous horses bred by Leland Stanford were raised. The entire sweep of land is shaded with rare plants, selected from over the entire world, including rare specimens from China, Australia, England, and from practically every clime. Ten acres near this place are set aside for the mausoleum of the Stanford family and a burying ground for members of the university, who shall be buried there only at the direction of the board of trustees.

Just at the point where the plain rises up toward the foothills the university buildings loomed into shape. Romanesque in style, they followed the style of the old Spanish missions, of which much of the construction of California consists.

Constructed of a buff sandstone, the buildings were elaborate with arches and covered passageways. Probably the most beautiful part was the inner quadrangle, with its longest side running in two 600-foot stretches of arcades. All this was capped at the side entrances with fairy towers in the mission style, with the roofs tiled in red. With the passage of the few years since this part of the university has been constructed, the color of the stone had slightly turned to a yellow, giving an additional glow to the buildings.

SCHOOL OF THE POOR.

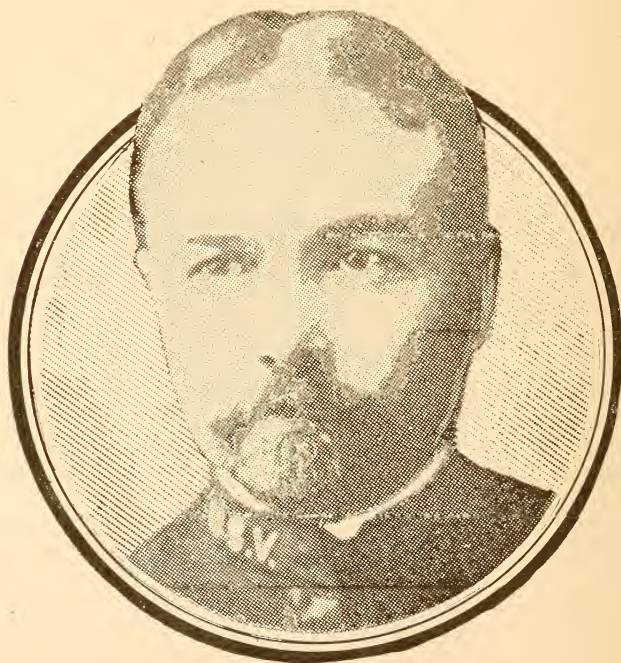
Inside of the quadrangle are two and one-half acres bedded in palms, bamboos, and other tropical plants, presenting a decorative and pleasing effect which is not soon forgotten. It is around this inner quadrangle that the large

imposing buildings composing the school were located. A year or two ago not less than fifteen of the buildings had been completed and several more were in the course of construction. In erecting the buildings the general scheme as originally planned was followed, and it is estimated that the actual cost of the buildings alone, when completed, would not have been under \$3,000,000.

All of the buildings were selected from plans submitted by the world's most prominent architects, following the outline established for the basis. It is because of this that the buildings composing the institution are referred to as the finest for educational purposes in the world.

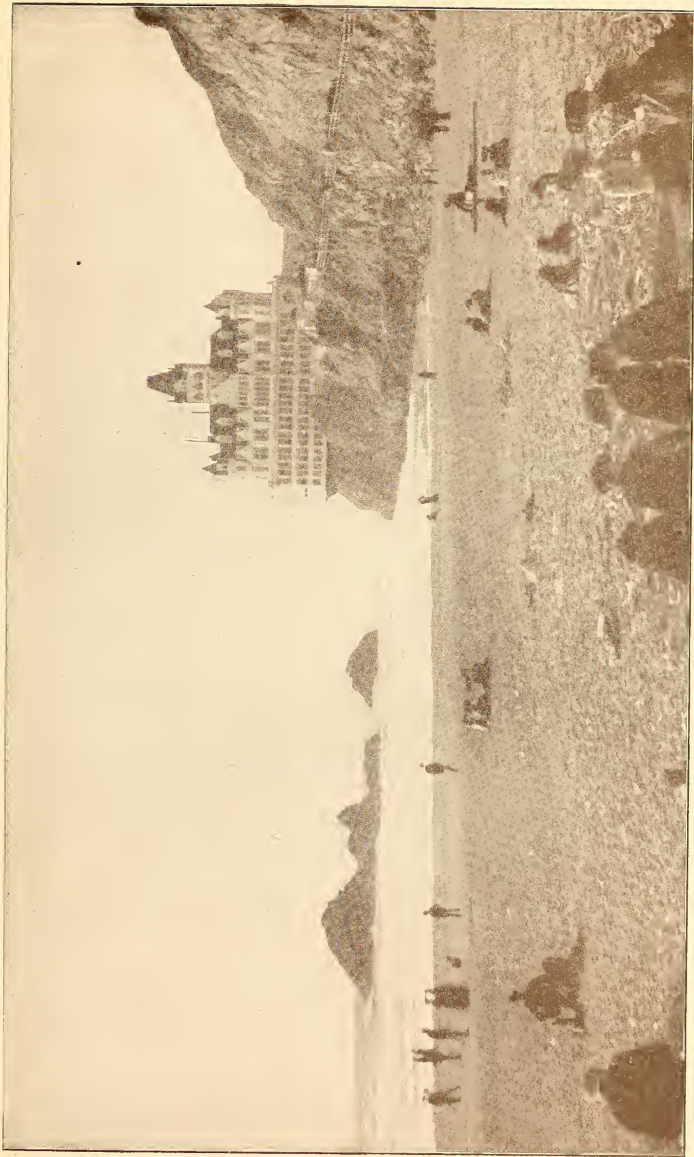
Following the ideas of the founder, the university grants no honorary degree, and there are no comparative ranking scholarships. In fact, it has only been within the past few years that the cap and gown idea at commencement was inaugurated. The school was established primarily, it is claimed, for the poor of both sexes.

It is said that the percentage of students depending on what they can make during the scholastic year to carry them through is not less than one-third of the matriculated students.



GENERAL FUNSTON.

The Army Officer Who Took Command at San Francisco When Chaos Reigned.



Cliff House, San Francisco, One of the Most Famous Resorts in America.

L.O.F.C.

CHAPTER VII.

HORRORS OUTSIDE OF SAN FRANCISCO.

San Jose Wrecked by Fateful Visitation—Santa Clara Falls Before Blow—Agnew's Insane Asylum Crushes Unfortunate Inmates—Salinas Ruined—Leland Stanford University at Palo Alto Annihilated—Berkeley, Oakland and Brawley Suffer in Less Degree—Railroads and Drives Obliterated—Entire Garden Section Laid Waste and Transformed Into a Desert.

Now when the centurion, and they that were with him watching Jesus, saw the earthquake, and those things that were done, they feared greatly saying, Truly this was the Son of God.—Mat. 27: 54.

While San Francisco bore the brunt of the earthquake shock, the tremor extended for many miles south down the peninsula, leaving ruin and death in its wake.

Nearly every city and village within 200 miles of 'Frisco felt the shock, and nearly every one was left in ruins. The main sufferer, outside of the Golden Gate City, was Santa Rosa, where many of the largest buildings collapsed and 500 persons were killed.

SOME OF THE SUFFERERS.

Among the best known cities and towns that suffered were the following:

AGNEW—Insane asylum wrecked and burned; 288 inmates perished.

ALAMEDA—Property loss of \$200,000; many buildings wrecked.

BERKELEY—Five lives lost.

BRAWLEY—Practically wiped out, all brick structures being destroyed; no fatalities.

CLOVERDALE—Many fatalities and wrecks.

GILROY—Large property loss.

GEYSERVILLE—Many killed; homes destroyed.

HEALDSBURG—Heavy life and property loss.

HOPLAND—Heavy loss.

HOLLISTER—Large property loss.

LOS ANGELES—Several buildings shaken but no material damage done.

LOS BANOS—Many brick buildings wrecked; loss, \$75,000; no fatalities.

LAMA PRIETA—Minehouse overthrown; ten men buried.

MARTINEZ—Bank building totally wrecked.

MONTEREY—Chimney fell through roof of Del Monte Hotel, killing a bride and groom and hotel employe; eight lives lost.

NAPA—Many buildings shattered; property loss \$300,000.

PALO ALTO—Leland Stanford, Jr., University is practically destroyed; several lives lost.

- REDWOOD—Courthouse and other buildings collapsed.
- SACRAMENTO—Buildings rocked like cradles; postoffice wrecked; other buildings damaged.
- SALINAS—Spreckels sugar factory destroyed; fire loss, \$1,500,000; high school building, Elks' Hall, Masonic Temple, armory, City Hall, K. of P. building, Odd Fellows' building, gone.
- SANTA ROSA, S.—Rose and Grand Hotels collapsed and buried all occupants; thirty-eight bodies taken from ruins; reports place total deaths as high as 500.
- SAN JOSE—Many buildings wrecked; sixty-five killed; Agnew's Insane Asylum wrecked and subsequently burned; 275 inmates killed, others roaming around the country.
- SANTA CRUZ—Twelve buildings destroyed; conflicting reports as to loss of life; Court House and twelve buildings destroyed; damage by tidal wave.
- SUISUN—Miles of railway track sunk; loaded passenger train nearly engulfed.
- UKIAH—Town in ruins.
- VALLEJO—Great damage to property; no lives lost.
- WATSONVILLE—Moreland Academy destroyed by fire; several buildings collapsed.

CITY A TOTAL WRECK.

Santa Rosa, one of the prettiest towns in the State, was a total wreck. Ten thousand men, women and children were huddled together in a section of the city not reached by the flames.

Their homes had been destroyed and nothing remained but a forest of charred timbers and shattered walls.

Santa Barbara was severely damaged. Every brick structure in the town was demolished. In addition dozens of adobe houses were razed, and the ruins, taking fire, were burned.

Strange manifestations of Nature were reported from the interior, where the ground was opened in many places like a ploughed field. Great rents in the earth were formed and for many miles north from Los Angeles miniature geysers were reported from which volcanic-like streams of hot mud were spouting. This mud is stretched along the roadside like lava to a depth of several feet in some places.

CAUSES GENERAL SORROW.

The destruction of Santa Rosa caused general sorrow among the residents of the interior of the State. It was one of the show towns of California, and not only one of the most prosperous cities in the fine county of Sonoma but one of the most picturesque in the State.

It was a total wreck. While ten thousand homeless persons roamed its wreck-strewn streets, the dead were lying in heaps.

Following the last violent quake of the earth, the whole business portion of Santa Rosa tumbled into the streets. The main street was piled several feet deep with the ruins.

All of the county buildings—the four-story courthouse, with its handsome dome, the churches, school houses and stores—were heaped together in a mass of wreckage, which immediately caught fire.

Until the fire started there were hopes of saving the residential quarter. But the flames spread with incredible rapidity, the water mains were found to have been broken by the force of the shock, and the terrified inhabitants were compelled to stand by and see the entire city go up in smoke.

From the fields and hill the people, unable to save even their household goods, watched the funeral pyre of their city and slowly what had been termed the most beautiful city in the West, was resolved into a heap of ashes.

Santa Rosa—"The City of Roses"—was the home of "Wizard" Burbank, the famous horticulturist.

There was not a structure left in town that escaped the fury of either the earthquake or the ensuing flames. Many of the dead never were recognized. They were burned in the ruins of the buildings.

Napa, a short distance from Santa Rosa, suffered almost as badly as did Healdsburg, Geiserville, Cloverdale, Hopland and Ukiah.

SIXTY-FIVE DIE AT SAN JOSE.

San Jose was another city that was almost completely obliterated. The damage there amounted to more than \$5,000,000, and more than sixty-five lives were lost. In the wreck of the Vendome Hotel alone fifteen persons were killed.

Fifty others were killed in the wreckage in other places about the city.

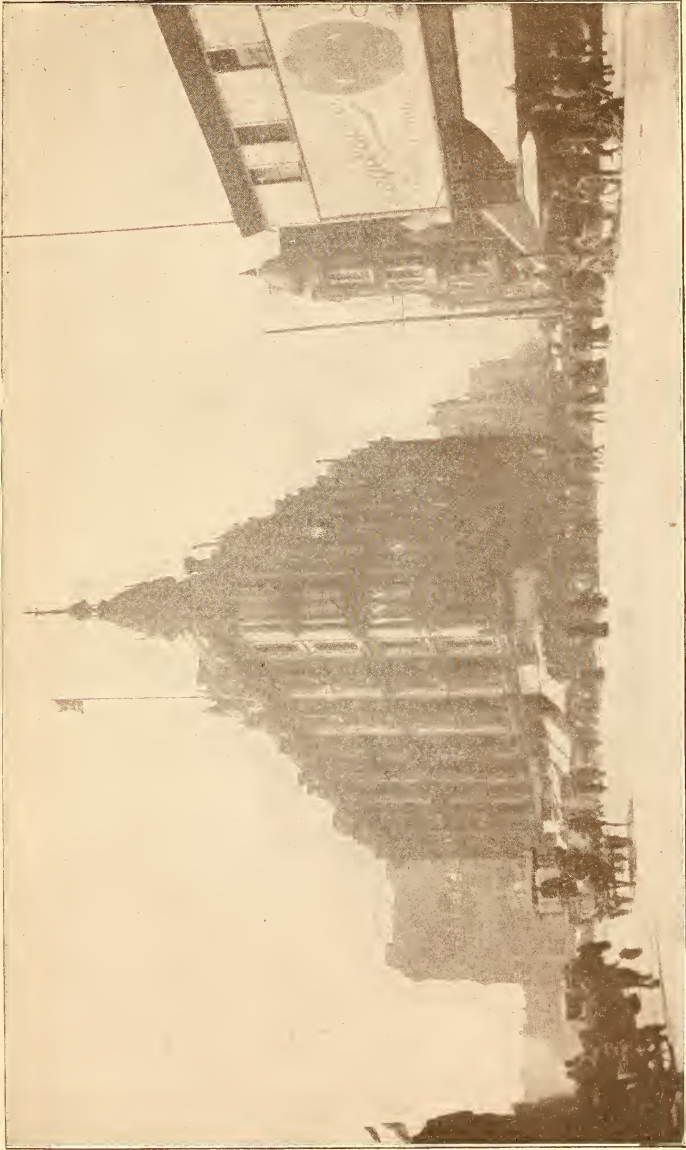
The old Santa Clara Mission, one of the oldest landmarks in California, located midway between San Jose and Santa Clara, was demolished.

One of the curious effects of the earthquake was shown in Loma Arieta, eighteen miles from Santa Cruz, where a house slipped down the side of a mountain, burying ten men in the ruins.

Santa Cruz itself suffered grievously. The death list there was large. At Salinas, down the coast near Monterey, which also suffered heavily, the town was practically destroyed, and the damage to property was more than \$1,000,000, with ten dead.

The country between Monterey, Castorville and Pajaro showed unmistakable signs of the terrific wrenching given to the section by the tremendous upheaval of the earth.

Great sinks, extending along the railroad track as far as the eye could



One of the Hotels of Market Street, Before the Shock.

reach and ranging from four to six feet in depth, were left in the surface of the earth. For distances of from one-quarter to three-quarters of a mile the roadbed dropped from four to six feet.

MUD GEYSERS SPOUT SLIME.

It was between Castorville and Monterey, along the railroad tracks and in the fields, that the mud geysers were in action. They spouted a hot, bluish shale-colored mud to a height of ten to twelve feet. The geysers were from four to ten feet apart, and in other sections they were fifty feet or more apart. The whole face of the country was covered with this mud in some places.

Stories of the most thrilling nature were told concerning the stricken sections. Near Castorville, while the seismic disturbance was at its height, Foreman H. J. Hall grabbed his two children and left the section house. As they passed through the door they saw the earth open a crevice, which Hall described as fully six feet wide, and then closed.

Panic reigned in the Del Monte Hotel, in Monterey, immediately following the first shock. The roof and a portion of the upper floor were wrecked and fell in upon the head of the sleeping guests. Two persons lost their lives, a bride and groom from Arizona, on their honeymoon.

Two men were killed in the Stanford University, one of them a fireman, the other a student. Six students from different parts of the country were seriously injured.

Robert Hanna, of Bradford, Pa., student, was killed.

UNIVERSITY OF CALIFORNIA ESCAPES.

The University of California, in Berkeley, however, escaped serious damage. Perhaps because of its elevated position across the bay from San Francisco, the great university was saved from the destruction which befell Stanford.

The Town Hall in Berkeley collapsed, and the Deaf and Dumb Asylum was ruined.

The Berkeley High School also suffered considerable damage.

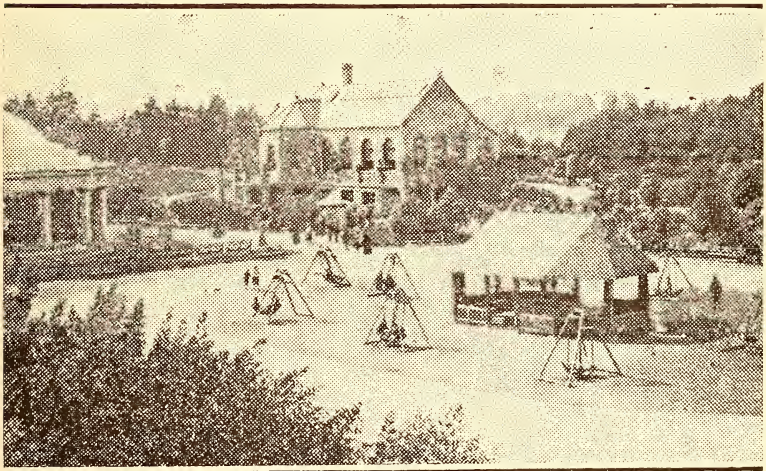
Sacramento did not suffer material damage, though the city was badly shaken. Great damage was done in Redwood City, where the Carnegie Library, among other buildings, was completely destroyed.

The little town of Gilroy was ruined. Practically every building of importance in the city was either completely or seriously damaged. At Alameda about \$10,000 damage was done.

Great difficulty was experienced in running trains. Rail communication on the north was cut off above Santa Rosa, which is sixty miles from San Francisco. On the south trains could not run above Fresno. On the west the wires of the railroads were gone as far east as the Utah line.

Fresno escaped any damage, although the shock was the heaviest ever felt there. At Los Banos, on the border line of the county, several brick buildings were wrecked. The loss was \$75,000.

The Southern oil fields suffered severe damage, the derricks, castings and other paraphernalia at the wells in many cases having been totally destroyed. It was noted also that the effect of the earthquake in many places was to change the flow of the oil, so that many new borings had to be made.



GOLDEN GATE PARK.
Where 200,000 Homeless People Were Camping.

CHAPTER VIII.

EXCITING ESCAPES.

Hurled from Bed by Shock—Hotel Rocked Like Cradle—Removing Dead Bodies—Beyond Power to Describe—City Doomed from First—Helen Dare's Weird and Horrifying Experiences—Soldiers Judges and Jury—Earth Seemed to Fall—Hospital Full of Dying.

And great earthquakes shall be in divers places, and famines, and pestilences, and fearful sights and great signs shall there be from heaven.—Luke 21: 11.

Scenes of horror that can only be imagined by those persons who have passed through a similar terror were witnessed on all sides. Survivors of the earthquake and the fire find that words fail them in attempting to fully describe the sights that greeted them at every turn.

"I was asleep in a room on the seventh floor of the Palace hotel, when the city was shaken by the first quake," said Albert H. Gould, of Chicago, president of the Chicago Car Heating Company.

"I was thrown out of my bed and half way across the room. Immediately realizing that it was an earthquake shock, and fearing the building was about to collapse, I ran down the six flights of stairs and into the main corridor. I was the first guest to appear. The clerks and hotel employes were running about as if they were mad.

GUESTS RUSH INTO CORRIDORS.

"Within two minutes after I had appeared other guests began to rush into the corridor. Few of them wore other than their night clothing.

"Men, women and children with blanched faces stood about trembling with fear. Children and women cried, the men were hardly less affected.

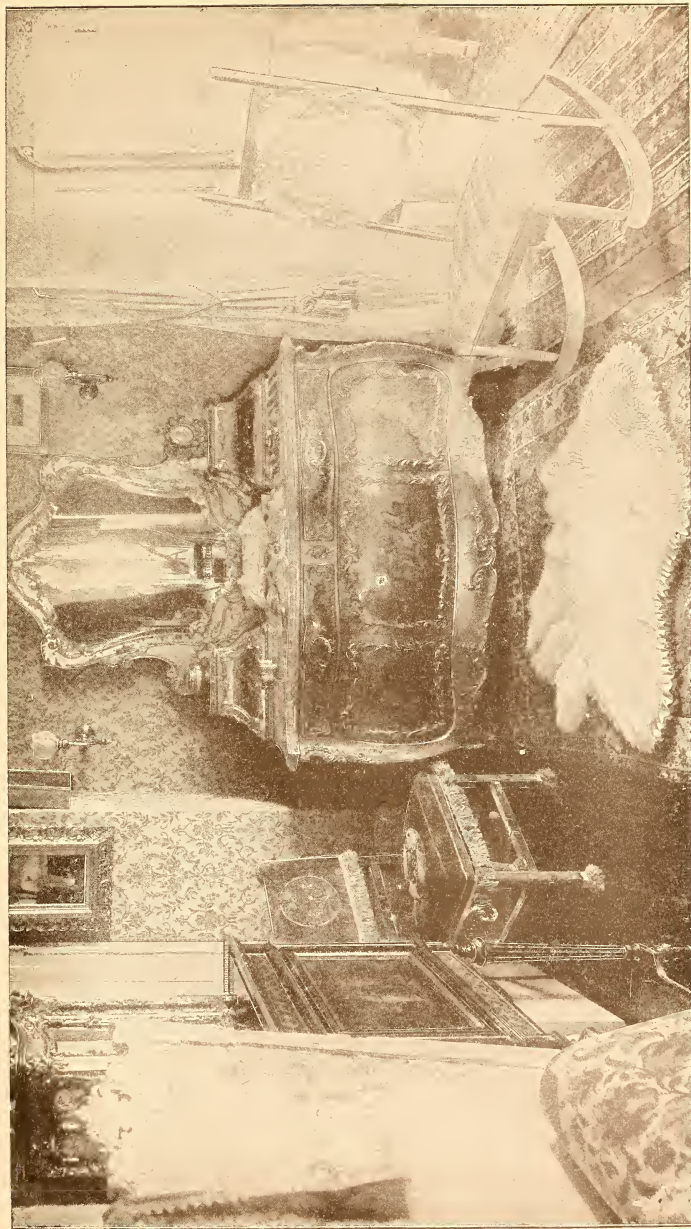
"I returned to my room and got my clothing, then walked to the offices of the Western Union in my pajamas and bare feet to telegraph to my wife in Los Angeles. I found the telegraphers there, but all the wires were down. I sat down on the sidewalk, picked the broken glass out of my feet and put on my clothes.

"All this, I suppose, took little more than twenty minutes. Within that time, below the Palace hotel, the buildings for more than three blocks were a mass of flames, which quickly communicated to other buildings.

"The scene was a terrible one. Billows of fire seemed to roll from the business blocks soon half consumed to other blocks in the vicinity, only to climb and leap again in great consuming waves.

LIKE A GREAT LEANING TOWER.

"The Call building, at the corner of Third and Market streets, I saw



Home of Luxury Destroyed in San Francisco.

as I passed, was more than a foot out of plumb and hanging over the street like the leaning tower of Pisa.

"I remained in San Francisco until 8 o'clock and then took a ferry for Oakland, but returned to the burning city an hour and a half later. At that time the city seemed doomed. I remained only a few minutes, then made my way back to the ferry station.

"I hope I may never be called upon to pass through such an experience again. Thousands of persons, seemingly devoid of reason, were crowded around the ferry station. At the iron gates they clawed with their hands as so many maniacs. They sought to break the bars, and, failing in that, turned upon each other.

"Fighting my way to the gate like the others, the thought came into my mind of what rats in a trap were. Had I not been a strong man I certainly should have been killed.

"When the ferry drew up to the slip and the gates were thrown open the rush to safety was tremendous. The people flowed through the passageway like a mountain torrent that, meeting rocks in its path, dashes over them. Those who fell saved themselves as best they could.

"I left Oakland at about 5 o'clock in the evening. At that time San Francisco was hidden in a pall of smoke. The sun shone brightly upon it without penetrating it. Flames at times cleft the darkness. This cloud seemed five miles in height, and at its top changed into a milk-white."

ROCKED LIKE A CRADLE.

A thrilling experience was that of J. R. Ritter, of Houston, Tex., who was in the Golden West hotel when the first shock came. Mr. Ritter said:

"When I awoke the hotel was rocking like a cradle. While I was dressing the rear wall of the hotel fell into the dining room.

"I was dressed by the time the second shock came and was going to rush out of the building, but the appeals of the women on the same floor stopped me.

"With the aid of some of the other men guests on the fourth floor we managed to get the women out. It was no slight task, as most of the women were hysterical.

"The first sight outside was that of half naked persons in the streets, running about crying, screeching, wild with fear, while buildings were toppling down around them and choking up the streets. Many were wrapped only in bed clothes.

"It took me two hours to get around the fire and across the bay."

REMOVING THE DEAD BODIES.

One of those who witnessed the great catastrophe was George F. Williams, a Pullman car conductor. He said:

"I left the city a few hours after the work of destruction was begun by the elements. The bodies of the dead were being carried through the streets in every manner of conveyance.

"In many places the streets were impassable. On lower Market street I saw a man with a team of horses and a truck on which four bodies were piled haphazard."

R. A. Cole, a horseman, well known over the country, was at the Palace hotel, in the midst of the scenes of horror.

"I never saw anything like it," said Cole, "and I have seen things, too. I was in the St. Louis cyclone and the Baltimore fire. They were nothing to this. I tried to rush down and jump in the bay and shut out all the awful sights."

Mrs. Agnes Zink, Hotel Broadway, was stopping at 35 Fifth street, San Francisco. She says: "The rear of that house collapsed and the landlady and about thirty of her roomers were killed. I escaped simply because I had a front room. I saw another lodging house near ours collapse—I think it must have been 38 Fifth street—and I know all the inmates were killed. In ten minutes the entire block to Mission street was in flames."

BEYOND POWER TO DESCRIBE.

"No mortal can describe the scenes witnessed in and around San Francisco, following the earthquake," said H. L. Powell, of Los Angeles, who went to the stricken city soon after the first alarm was sounded.

"I was in Berkeley when the shock occurred, but went to San Francisco on the first ferry, arriving there at 6:30 o'clock. At that hour Market street was crowded with panic stricken people.

"Women shrieked with fright and fainted on the sidewalks. Men scantily clothed rushed from the hotels, and little children clung frantically to any older person they could find.

"The front of the building on Mission street fell on thirty cows and killed every one of them. Market street was covered with debris from one side to the other."

CITY DOOMED FROM THE FIRST.

"Reports cannot be exaggerated. San Francisco was doomed from the time the first shock came and the fire broke out," said G. D. Werden, of 3212 Delmonte street, who was in Oakland at the time of the shock. "Oakland was badly damaged. Hundreds were killed and thousands made homeless in San Francisco."

"Dead and dying lay piled up like cord wood in the streets, and through this hell I walked five miles to the ferry," said C. L. King, of San Francisco, after his arrival in Oakland, where he fled with other refugees.

"Many of the dying were crazed by the sight and lack of water. Nothing could be done for them.

"On lower Market street I saw a man with a team of horses and a truck, on which four bodies were piled haphazard. As I stood there a building tumbled into the street, which was already blocked in front.

"The flames came on apace, and the man, unable to save his horses or his freight of human bodies, sought safety in flight. As I watched the fire licked up the dead and the living and swept onward in search of more sustenance.

DESTRUCTION OF PALACE HOTEL.

"The detonations of exploding dynamite were terrible. At 1 o'clock the destruction of the Palace Hotel began.

"A regiment of soldiers formed a square around the tottering building, charges of dynamite were placed in the corridors, and then a moment before the time for firing they drove the people headlong before them for some distance in order to protect them from accident.

"When I left at 2 o'clock the street was either on fire or in ashes, and in order to gain the ferry station I was forced to make a wide detour around by Telegraph Hill.

"One of the peculiar things about the disaster is that many of the buildings began first to burn from their upper stories."

THRILLING STORY OF RESCUE.

C. A. Duffy, of Owensboro, Ky., was the only man out of several score to escape from the floor in which he was quartered in the St. Rose Hotel at Santa Rosa. He told a thrilling story of his rescue and the condition of affairs in general in Santa Rosa.

Mr. Duffy said that when the shock came he rushed for the stairway, but the building was swaying and shaking so that he could make no headway, and he turned back.

He threw himself in front of the dresser in his room, trusting to that object to protect him from the falling timbers. This move saved his life. The dresser held up the beams which tumbled over him, and these in turn protected him somewhat from the falling mass of débris.

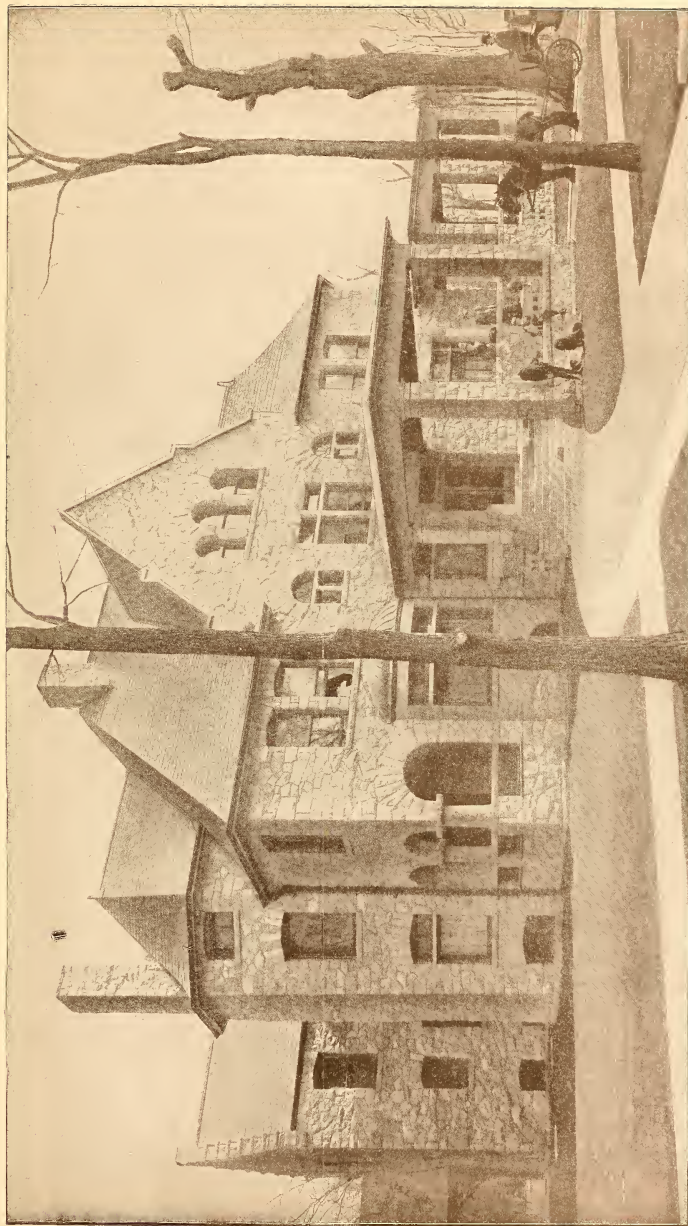
"I was imprisoned five hours," said Mr. Duffy, "before being rescued. Three times I tried to call and the rescuers heard me, but could not locate my position from the sound of my voice, and I could hear them going away after getting close to me.

"Finally I got hold of a lath from the ruins around me, poked it through a hole left by the falling of a steam pipe, and by using it and yelling at the same time finally managed to show the people where I was.

"There were about 300 persons killed in the destruction of the three hotels.

"The business section of the place collapsed to the ground almost inside of five minutes. Then the fire started and burned Fourth street, from one end to the other, starting at each end and meeting in the middle, thus sweeping over the ruins and burning the imprisoned people.

"I saw two arms protruding from one part of the débris and waving frantically. There was so much noise, however, that the screams could not be



Home on Nob Hill Destroyed by the Earthquake.

heard. Just then as I looked, the flames swept over them and cruelly finished the work begun by the earthquake. The sight sickened me, and I turned away."

GHASTLY SCENE OF DESOLATION.

Fred Anthony, a newspaper man from Los Angeles, who went to the doomed city soon after the buildings began to fall, said he never saw such a ghastly scene of general desolation.

"There is no pen that can describe the scene of desolation left in the wake of the terrible disaster that has overtaken it," he said.

"What made San Francisco famous was, when I reached there, nothing but heaps of smoldering débris. Its magnificent buildings, its markets, its gay and happy throngs were no more. Inhabitants were fleeing from it as though from a dread pestilence. The ferries were taking its thousands at every trip. The boats running in every direction were loaded to the water line with fleeing people.

"East street presented a scene the rout of an army never equaled for its disorder. Extending along the water front, it was the only means of access to the ferries. It was the one highway along which the rich and poor, old and young, with their bedding and worldly possessions tied up in every sort of odd package, were making their way. The scene beggared description, and the pen of a Hugo or Tolstoi would be unequal to give an adequate idea of it.

"And, oh, the loss of it! The awful isolation and waste of what men in this world set great store by."

SOLDIERS JUDGE AND JURY.

William Johnston, a traveling man, who went to the assistance of the soldiers, who were called on to assume command when the panic became greatest, was in the thickest of the horror. He said:

"The soldiers, who were administering affairs with all the justice of judges and all the devotion of heroes, kept three or four buckets of water, even from the women, for these men, who kept coming all the night long.

"There was a little food, also kept by the soldiers for these emergencies, and the sergeant had in his charge one precious bottle of whisky, from which he doled out drinks to those who were utterly exhausted.

Over in a corner of the plaza a band of men and women were praying, and one fanatic, driven crazy by horror, was crying out at the top of his voice:

"The Lord sent it—the Lord!"

TROOPER STOPS THE SCREAMING.

"His hysterical crying got on the nerves of the soldiers and bade fair to start a panic among the women and children. A sergeant went over and stopped it by force.

"All night they huddled together in this hell, with the fire making it bright

as day on all sides, and in the morning, the soldiers using their sense again, commandeered a supply of bread from a bakery, sent out another water squad, and fed the refugees with a semblance of breakfast.

"There was one woman in the crowd who had been separated from her husband in a rush of the smoke, and did not know whether he was living or dead. The women attended to her all night, and in the morning the soldiers passed her through the line on her search.

"A few Chinese made their way into the crowd. They were trembling, pitifully scared, and willing to stop wherever the soldiers placed them.

"When the flames began to spread a corps of volunteer aids ran along the edge of the fire, warning people out of the houses. But the flames ran too fast; and two women were caught in the upper story of an old frame house.

"A young man tore a rail from a fence and managed to scale it and reach the window. He seized one woman and managed to drop her on to the rail, down which she slipped without hurting herself a great deal.

"But the roof fell while he was struggling with the other, and they fell together into the flames."

EARTH SEEMED TO FALL.

J. P. Anthony, of Pacific Grove, Cal., was in San Francisco when the shock, followed by the fire, hit the Golden Gate city.

"I was sleeping in my room at the Ramona hotel on Ellis street, near Macon, when I was suddenly awakened at 5:23," he said. "The first shock that brought me out of bed was appalling in its terrible force. The whole earth seemed to heave and fall.

"The building where I was housed, which is six stories high, was lifted from its foundation and the roof caved in. A score or more of guests, men and women, immediately made their way to the street, which was soon filled with people, and a perfect panic ensued. Debris showered into the street from the buildings on every side.

"As a result I saw a score or more of people killed. Women became hysterical and prayed in the streets, while men sat on the curbing appearing to be dazed.

"It was twenty minutes before those in the vicinity seemed able to realize the enormity of the catastrophe. The crowds became larger and in the public squares of the city and in empty lots thousands of people gathered.

POLICE WARN THE PEOPLE.

"It was 9 o'clock before the police were in control of the situation. When they finally resumed charge the officers directed their energy toward warning the people in the streets away from danger. Buildings were on the brink of toppling over.

"I was walking in Market street, near the Emporium, about 9 a. m., when a severe shock was felt. At once the street filled again with excited persons and thousands were soon gathered in the vicinity, paralyzed with fear.

“Before the spectators could realize what had happened the walls of the building swayed a distance of three feet. The thousands of bystanders stood as if paralyzed, expecting every moment that they would be crushed, but another tremor seemed to restore the big building to its natural position.

“I momentarily expected that, with thousands of others who were in the neighborhood, I would be crushed to death in a few moments.

“I made my way down Market street as far as the Call building, from which flames were issuing at every window, with the blaze shooting out through the roof. A similar condition prevailed in the Examiner building across the street.

DETERMINED TO LEAVE CITY.

“I then started for the depot at Third and Townsend streets, determined to leave the city. I found a procession of several thousand other persons headed in the same direction.

“All south of Market street about that time was a crackling mass of flames. I made my way to Eighth and Market, thence down Eighth to Townsend and to Third street, and the entire section which I traversed was afire, making it impossible for me to reach my destination. I attempted to back track, but found that my retreat had been cut off by the flames.

“I then went to Twelfth street and reached Market again by the city hall. San Francisco’s magnificent municipal building had concaved like an egg shell. The steel dome was still standing, but the rest of the \$3,000,000 structure was a mass of charred ruins.

HOSPITAL FULL OF DYING.

“It was not yet noon, but the city’s hospitals were already filled with dead and injured and all available storerooms were being pressed into service. Dead bodies were being carried from the streets in garbage wagons.

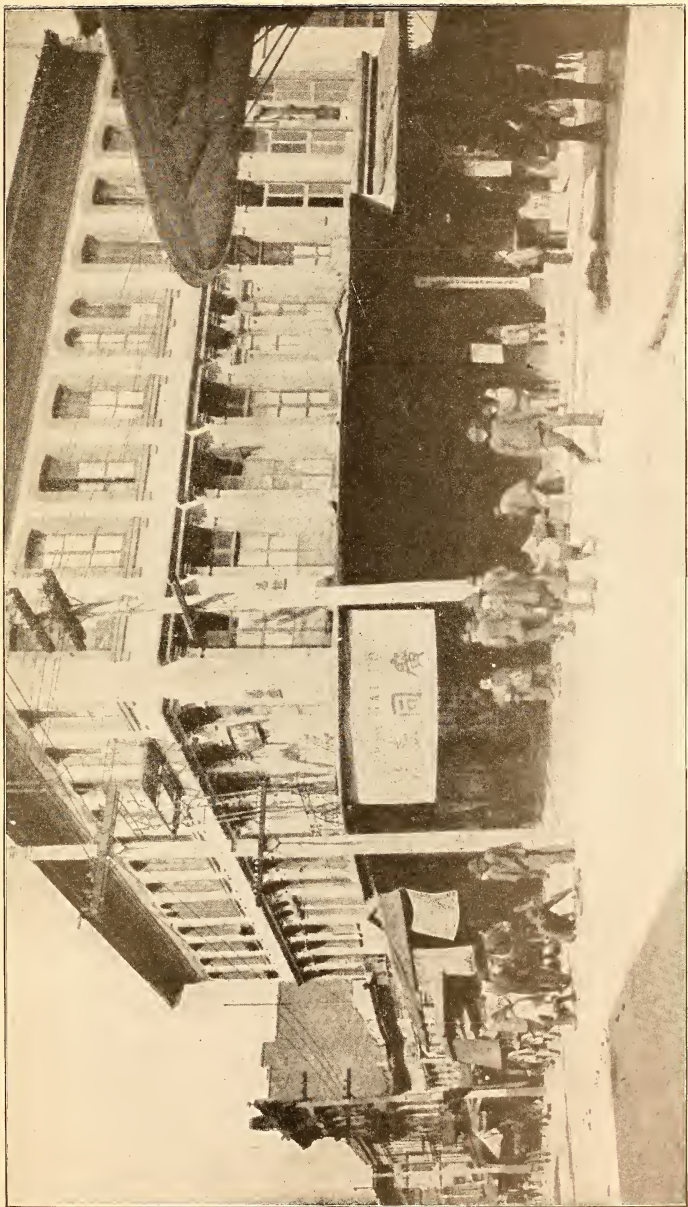
“In every direction hysterical women were seen. Men walked through the streets weeping and others with blanched faces.

“Transfer men were being offered fabulous sums to remove household goods, even for a block distance. Horses had been turned loose and were running at large to prevent their being incinerated in the burning buildings.

“Women had loaded their personal belongings on carts and were pulling them through the city, the property being huddled in the public squares.”

ROCKED LIKE SHIP AT SEA.

“The Grand hotel tossed like a ship at sea. There was a wavelike motion, accompanied by a severe up and down tremp,” said J. R. Hand of Los Angeles. “The shock was accompanied by a terrific roar that is in-



A Street in the World Famous Chinatown, San Francisco, Which Was Completely Wiped Out by the Fire.

describable. An upright beam came through the floor of my room and the walls bulged in. I thought I should not get out alive. All my baggage was lost, but I still have the key to my room as a souvenir, No. 249.

"I was on the third story of the hotel and got the last vacant room. No one in any of the stronger built hotels was killed, to the best of my knowledge. These hotels were destroyed by fire after being severely wrecked. I reached the ferry station by a trip of about six miles around by the Fairmount hotel and thence to the water front.

"The Examiner building went up like a flash. I was standing in front of the Crocker building and saw the first smoke. Just then the soldiers ran us out. We went around two blocks and the next view we had the building was a mass of flames. The burning of the Palace was a beautiful sight from the bay."

LIKE STALKS IN THE WIND.

"The St. Francis hotel felt as if it would tip over," said Dr. W. Edward Hibbard at Pasadena. "I ran to the window and saw the big buildings waving like stalks in the wind."

Miss Lida Baker, of Des Moines, was a guest at the Terminus hotel and was awakened by the rocking of the hotel. She had just run into the middle of the street when the chimney of the building fell and crashed through the roof, carrying death and destruction to all who were in its path.

She ran through the middle of the streets to the ferry, where hundreds of excited citizens were fighting for a chance to get aboard to be carried over to Oakland. She succeeded in getting aboard and arriving in time to catch a train from that place.

NEWSPAPER WOMAN'S STORY.

Helen Dare, a newspaper woman, in relating her experience, said:

"No one who has not seen such a disaster as this that has befallen San Francisco can have any realization of the horror of it, of the pitiful helplessness and inadequacy of human beings thus suddenly cast before the destroying forces of nature.

"Perhaps my own merely personal experience will tell the story as well as anything, for my personal experience is only that of the thousands of persons who were without an instant's warning thrown from a peaceful sleep into a paralysis of fear by the violent and continuous rocking of bed, of floor, of walls, of furniture, by the sounds of crashing chimneys, falling ornaments and pictures, breaking glass and the startled screams of women and children.

TELLS HOW QUAKE FELT.

"As if with sudden impact, I felt my bed struck from the north and then heave violently. I jumped out, putting my hands out to steady myself, but the opposite walls seemed to move away from me. The floor rocked like a boat on

a choppy sea, the violence of the motion increasing and seeming ever and again to take a fresh start. It seemed as if it would never end, and yet it lasted but two minutes. My young son came running from his room and clasped in each other's arms we stood in the doorway of my room waiting, waiting. With a relaxing quiver—like the passing of a sigh, the heaving earth and billowing floor sank into repose.

"We dressed and through the disarranged furniture, over the broken glass and fragments of ornaments we made our way out. The streets were full of people in every stage of undress and excitement, one young mother in her night dress clasping her eight-month-old baby in her arms and trying to warm it by wrapping her thin lawn garment around it.

FEAR HUGE TIDAL WAVE.

"The swarming people climbed the hills, their first fear being that a tidal wave would follow, and all eyes were on the bay, shining in the moonlight, but not even the sea wall of the land that the Fair estate is reclaiming from the ocean was hidden by water. The great gas tank near the water's edge was in flames and many believed the disturbance had come from the explosion of that.

"By common instinct the people gathered in the streets. No one wanted to return to the threatening houses.

"There were no cars, of course. Every one must walk who has no automobile or carriage or wagon.

"Automobiles were tearing and honking madly in every direction, filled with frightened men and women and children, some dressed as though for a promenade, others partly dressed or wrapped in bed clothes.

HARROWING SIGHTS SEEN.

"Never were stranger automobile parties than these. I saw one little woman carrying her baby, her tear-wet face clinging to its baby cheeks, and she wore only her night dress and a kimono as her tender bare feet pattered across the sidewalk from a mansion door to an automobile.

"Here again is an old, old woman with wrinkled face, paper-white—somebody's grandmother she is—and she is being trundled along in an invalid chair, her family with hastily made bundles of clothes and valuables about her.

"Here is a wagon filled with bedding and cooking utensils, a crying woman and a baby on the seat, a bird cage dangling at the tail and two men taking the part of horses. Then a crazy night hawk hack, a white-faced woman dragged from her sick bed in it, fainting in the arms of another woman.

"Then a big road machine screeching along, a red-faced fat man standing up in it mopping his brow, his eyes searching for the building that holds his business, and little street boys darting in and out snatching what they can get, throwing that away and snatching more like children wantonly picking wild flowers.

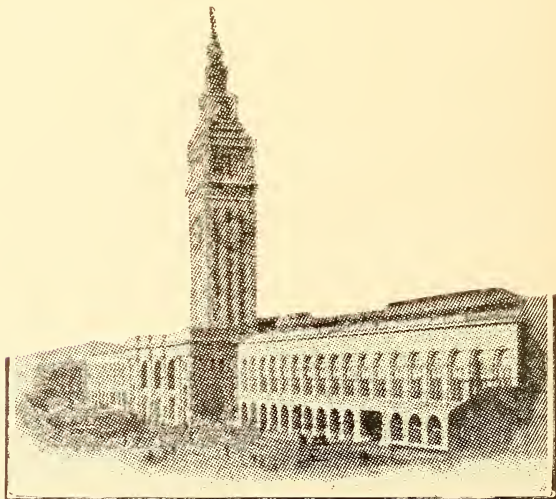
EMPTY VAULTS OF VALUABLES.

"I see one little creature capering with three hats on his head that he had taken from a show window. The banks and safe deposit vaults, the men and boys employed there, are busy pulling out drawers full of ledgers and valuable papers, carrying them away in their hands, loading them into wagons and even into wash buckets. On the steps of one bank, with the fire only a block away, I see a man wringing his hands and crying aloud, 'Will he never come, will he never come with the combination? My God, why doesn't he come?'

"A theatrical man comes running along telling how the Grand Opera House has fallen in and is on fire with all Conreid's grand opera settings and the singers' beautiful costumes going up in smoke. He laughs idiotically, poor chap, and says, 'Sudden close of the opera season, isn't it?'

"I try to make my way to the ferry, first down one street and down another leading to the water front. Each one as I try, from Post to Washington, is closed by fire or wreckage, and there is no way through. On Washington street, opposite the old postoffice, a building has completely collapsed and under its edges are horses struggling and dying.

"At last we find an open way on the next street and with the warmth of the blaze of water front saloons on my back I hurry across the upheaved street and twisted car tracks. This is made ground, and the earthquake played with it as a child plays with a cardboard, cracking, creasing, bending it."



THE FERRY BUILDING AT THE FOOT OF MARKET STREET.
Saved From the Flames,



The Ferry Depot Before the Earthquake.

CHAPTER IX.

GOVERNMENT PROVIDES RELIEF.

Senator Perkins, of Afflicted State, Asks Help—His Plea for \$500,000 Meets With Approval—Amount Made \$2,500,000—Text of the Resolutions—Secretary of the Treasury Shaw Acts—Army and Navy Forces and Department of Commerce and Labor Co-Operate.

“And the angel took the censer and filled it with the fire of the altar and cast it into the earth and there were voices and thunderings and lightnings and an earthquake.”—Rev., 8: 5.

Congress was quick to realize the need of national aid for the sufferers and as quick to act. Two and a half million dollars was appropriated. On the convening of the Senate, Mr. Perkins, one of the senators from California, introduced a joint resolution, which was passed without comment, authorizing the secretary of war to use rations and quartermasters' supplies for the relief of destitute persons in the region devastated by earthquake and fire in California, and making an appropriation of \$500,000 to relieve the sufferers.

The senate resolution, having been passed by that body, was forwarded to the house, where it was amended by the committee on appropriations, the amount being increased to \$1,000,000.

The house adopted the resolution within ten minutes of its being reported. Later the amount was made \$2,500,000.

TEXT OF THE RESOLUTION.

The resolution read as follows:

“Whereas, the most terrible disaster which has ever taken place on this continent has occurred in the state of California, in which one-half of the city of San Francisco has been practically destroyed by earthquake and fire, and many towns and cities along the coast have suffered from similar devastations; and

“Whereas, in all of the afflicted localities there has been wrought such ruin as has resulted in great loss of life and the serious injury of thousands of people; and

“Whereas, the destruction of dwelling houses has rendered homeless 100,000 of the inhabitants of San Francisco alone; and

“Whereas, there is most urgent need to bury the dead, care for the injured and shelter and feed the homeless; and

“Whereas, the local administrations will for some time be unable to cope with the situation and extend such aid and assistance as is immediately necessary; therefore, be it

“Resolved, That the sum of \$500,000 or such part thereof as may be necessary is hereby appropriated out of any money in the treasury, not otherwise

appropriated, to be expended by and under the direction of the secretary of war in the purchase and distribution of quartermasters' and commissary stores to such injured and destitute persons as may require assistance in the district devastated by earthquake and fire.

"And the secretary of war is authorized to use the steamers and other boats and vessels belonging to or now employed by the government upon San Francisco bay or adjacent waters in the transportation and distribution of supplies furnished by the United States or individuals to and among such destitute and suffering people, and he may employ such other means of transportation as he may deem necessary to carry the purpose of this joint resolution into effect."

PRESIDENT ISSUES PROCLAMATION.

President Roosevelt immediately after giving his official sanction to the act of Congress appropriating \$2,500,000 to the sufferers held a conference with Miss Mabel Boardman of the American National Red Cross, and issued, in the form of a proclamation, an appeal to the American people for aid for the people of San Francisco. He asked that all contributions be made through the officials of the American National Red Cross, who have effected systematic arrangements for the distribution of the needed assistance.

President Roosevelt in his proclamation said:

In the face of so terrible and appalling a national calamity as that which has befallen San Francisco the outpouring of the nation's aid should, as far as possible, be intrusted to the American Red Cross, the national organization best fitted to undertake such relief work. A specially appointed Red Cross agent, Dr. Edward Divine, starts today from New York for California to co-operate there with the Red Cross branch in the work of relief.

In order that this work may be well systematized and in order that the contributions which I am sure will flow in with lavish generosity may be wisely administered I appeal to the people of the United States, to all cities, chambers of commerce, boards of trade, relief committees and individuals to express their sympathy and render their aid by contributions to the American National Red Cross.

They can be sent to Charles Hallam Keep, Red Cross treasurer, Washington, D. C.; Jacob H. Schiff, New York Red Cross treasurer, or other local Red Cross treasurers, to be forwarded by telegraph from Washington to the Red Cross agents and officers in California.

THEODORE ROOSEVELT.

ANOTHER MESSAGE TO CONGRESS.

The President followed this by sending another message to Congress as follows:

"To the Senate and House of Representatives: I submit herewith a letter of the Secretary of War, with accompanying documents, including a form of a resolution suggested for passage by the Congress.

"This letter refers to the appalling catastrophe which has befallen San Fran-

cisco and neighboring cities, a catastrophe more appalling than any other of the kind that has befallen any portion of our country during its history. I am sure that there is need on my part of no more than a suggestion to the Congress in order that this resolution may be at once passed. But I urge that instead of appropriating a further sum of \$1,000,000, as recommended by the Secretary of War, the appropriation be for \$1,500,000. The supplies already delivered or en route for San Francisco approximate in value \$1,500,000, which is more than we have authority in law as yet to purchase. I do not think it safe for us to reckon upon the need of spending less than \$1,000,000 in addition.

NO NEED OF FOREIGN AID.

"Large sums are being raised by private subscriptions in this country, and very generous offers have been made to assist us by individuals of other countries, which requests, however, I have refused, as, in my judgment, there is no need of any assistance from outside our own borders—this refusal, of course, is no way lessening our deep appreciation of the kindly sympathy which has prompted such offers.

"The detailed action of the War Department is contained in the appendices to the letter of the Secretary of War. At this time our concern is purely with meeting the terrible emergency of the moment. Later I shall communicate with you as to the generous part which I am sure the national government will take in meeting the more permanent needs of the situation, including, of course, rebuilding the great governmental structures which have been destroyed.

"I hope that the action above requested can be taken today.

"THEODORE ROOSEVELT.

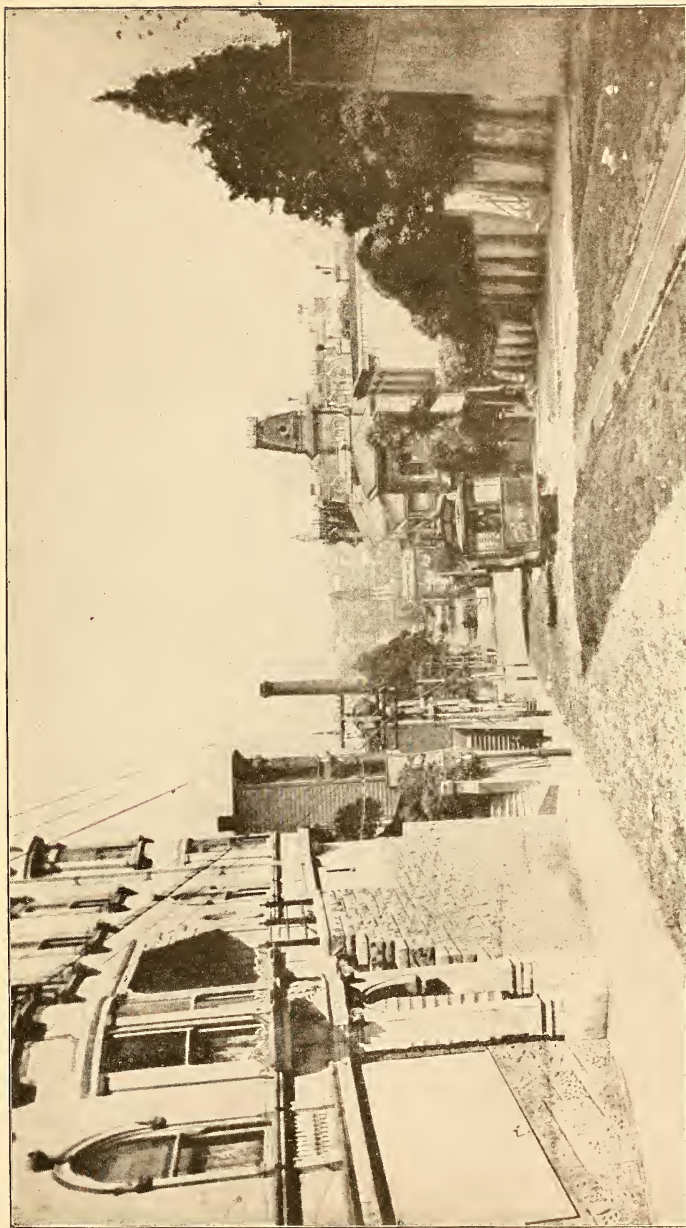
"The White House, April 21, 1906."

SECRETARY SHAW ACTS.

Secretary of the Treasury Shaw in his official capacity also came to the immediate assistance of San Francisco through its banks. The telegraphic transfer of \$10,000,000 from the subtreasury in New York to the one in San Francisco was at once authorized. The cash was deposited in New York, where it was immediately paid out on the order of San Francisco banks entitled to it.

This action on the part of the treasury department did much to relieve the immediate stringency that necessarily followed such a giant catastrophe as that which laid desolate the metropolis of the Pacific coast.

The department of commerce and labor gave all the assistance within its purview. Dispatches were immediately sent by Secretary Metcalf to the lighthouse inspectors in San Francisco and to other officials directing boats under the control of the department to proceed at once to San Francisco and do everything possible to relieve the situation. The lighthouse tender *Machono* and the United States steamer *Albatross* at once proceeded to the city.



View From the Side of Nob Hill.

CHAPTER X.

HUMAN VAMPIRES SHOT DOWN.

Ghouls Begin Their Awful Work After Confusion Seizes the People—Robbers of the Dead Are Slain by Soldiers and Police—Diamond Rings on Severed Fingers Found in Pockets of Men Killed by Guards—Guest of the Grand Hotel Watches the Loading of Drays With Human Bodies—Women Walk the Streets With Their Bare Feet Cut and Bleeding.

That be far from thee to do after this manner to slay righteous with the wicked; and that the righteous should be as the wicked, that be far from thee: Shall not the judge of all the earth do right?—Gen. 18: 25.

Fiends in human form, in whose bosoms was no sympathy for the stricken, began at once the unholy work of robbing the dead. In many cases these vampires were shot dead in their tracks by soldiers or policemen.

A. J. Neve, manager of the great Owl drug store in San Francisco, barely escaped to Sacramento with his life.

"The work of the villain—the vandal, the worse than murderer—was the thing that added rage to discouragement and despair," declared Mr. Neve. "Hundreds of women were crowded into the St. Francis Hotel, it being believed that it could withstand the flames.

"The buildings burned on all sides of it and then it caught. The women were carried out and the villains cut off their fingers and put them in their pockets to secure the diamond rings.

"There was only one consolation. The men caught at this work were shot without a question. Many of them were killed. Wherever men were found robbing dead bodies they were shot down. In the pocket of one who paid the penalty with his life there were five diamond rings that had been stripped from the fingers of the dead.

"The soldiers, worn down and thirsty, broke into saloons to get water or liquor to brace them up. Many of them got drunk and the result was that they shot many innocent people. That is a simple truth. And yet the soldiers were not all to blame. They were on constant duty and were worn out.

"Liquor that ordinarily would stimulate intoxicated, and therein lay the trouble."

Sheriff William White of Los Angeles had a thrilling experience in San Jose, where he was a member of a party at a hotel.

"The shock of the earthquake," he said, "was so severe that the floors and walls of the building collapsed at once, and those of us who escaped made our way as best we could out of the ruins. We had a room on the side of the hotel near a large tree. The side wall of my room fell against this tree, which also sustained that portion of the roof, preventing it from falling in on us. My room was on the second floor, but when I picked myself up I was in the basement of the building.

"I crawled up and out over the debris and escaped through a window on a level with the ground. After getting out I discovered that this was one of the third story windows. Those of us who were uninjured at once set about assisting the less fortunate."

LIKE CARCASSES IN BUTCHER'S WAGON.

Thousands of persons had experiences similar to that thrillingly described by Sam Wolf of Chicago. Mr. Wolf said:

"My room was in the Grand Hotel. When I awakened the house was shaking as a terrier might shake a rat. I dressed and ran downstairs to the street, which seemed to move like waves of water. On my way down Market street the whole side of a building fell out and came so near to me that I was covered and blinded by the dust.

"Then I saw the first dead come by. They were piled up in an automobile like carcasses in a butcher's wagon, all covered with blood, with crushed skulls and broken limbs.

"A man cried out to me, 'Look out for that live wire.' I just had time to side-step certain death. On each side of me the fires were burning fiercely. I finally got into the open space before the ferry. The ground was still shaking and gaping open in places. Women and children knelt on the cold asphalt and prayed to God for mercy.

"At last we got on the boat. Not a woman in the crowd had enough clothing to keep her warm, to say nothing of money for fare. I took off my hat, put a little money in it, and we got enough money right there to pay all their fares.

"I forgot to tell you I saved one of the women from sure death just before I got out of the hotel. She was running toward an open window and I caught her as she was part way out. 'Where are you going?' I asked. 'Oh, I was going downstairs,' she answered. She would have fallen fifty feet to the stone pavement.

"She followed me out on the street, barefooted, and cut her feet on the broken glass, leaving a trail of blood behind her. The last I saw of her she was on her knees, begging God for mercy on her sinful soul."

HUMAN JACKALS LOOT THE DEAD.

John W. Hancock, who was connected with the Palace Hotel, and who barely escaped from the shattered building with his life, said:

"Just as the tottering walls of the Palace trembled for the last time and fell into the flaming ruins of the one-time splendid structure the last frightened guest was hurried from the building.

"Half-burned bodies of naked men and women who were killed while trying to escape from the fire-trap lodging houses littered the streets. Human jackals were everywhere in evidence looting wrecked jewelry stores and the more daring wrenched rings from the fingers of the dead.

"Although the military authorities tried desperately to stop the outrages,

they succeeded only in isolated instances, and in many quarters, notably the poorer portion of San Francisco, the dastardly criminals worked unmolested.

"Chinatown was one of the first sections ruined; naked and half-naked men and women were running along the streets, cattle and horses were mixed up with the crowd, and the scene was one of indescribable confusion. The air seemed to be a sort of bluish yellow. To make matters worse, there was the most peculiar smell in the air. Then the buildings were leaning together in a crazy fashion and debris was falling everywhere. I knew when the water was gone that the city was gone.

"I distinctly felt two heavy shocks before we left for Oakland, and after we got over to the Oakland side there were two more.

"As we left the 'Frisco side I could see fire in all directions. Persons whom we met had come for many blocks, running to the water front, half-naked and with bare feet. At that time it was no easy matter to get through the streets for the stuff thrown about by the shock. The sight was the most horrible I ever witnessed, and I have seen many fires.

"Some persons we met were cut about the face and hands by falling glass or windows, and others had been hit by stones. None of them seemed to know where they were going, but ran about in every direction."

MOB LYNCHES TWO MISCREANTS.

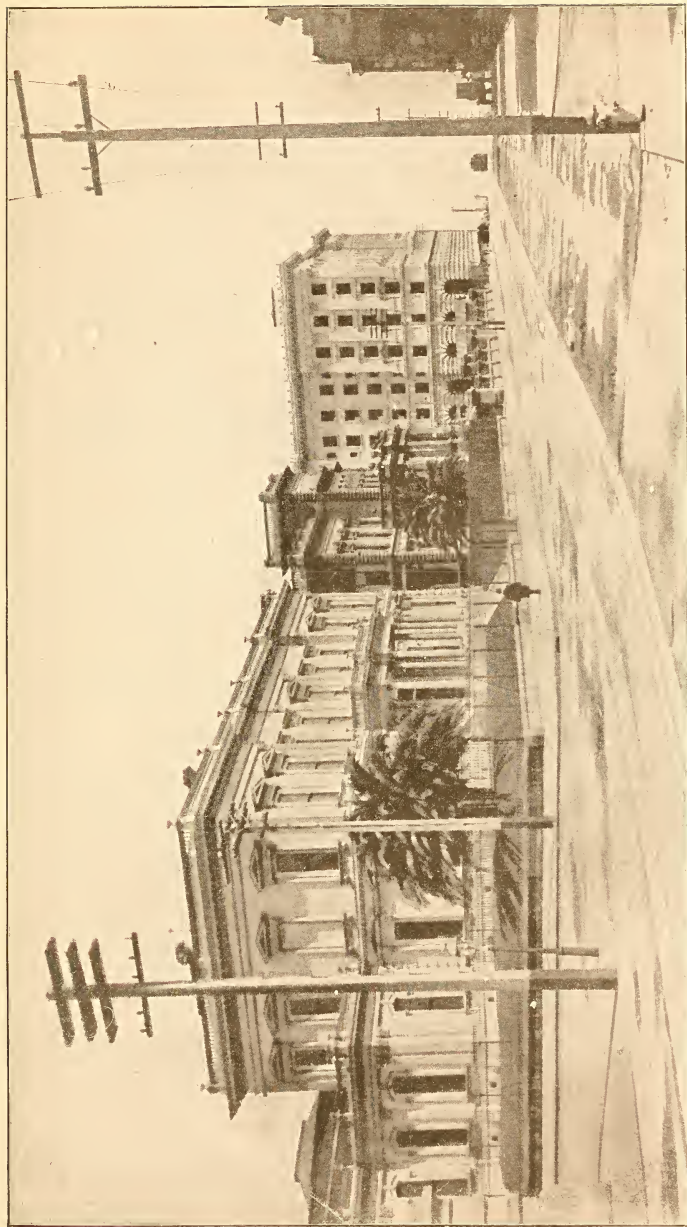
"Instant death to scores was the fate for vandalism," said Oliver Posey, Jr., a wealthy mining operator. "Not only did the soldiers execute summary justice on robbers, but citizens likewise took the law into their own hands. On the first afternoon in front of the Palace Hotel a crowd of workers in the ruins discovered a miscreant in the act of robbing a corpse of its jewels. Without delay he was seized, a rope procured, and he was immediately strung up to a beam which was left standing in the ruined entrance of the Palace Hotel.

"No sooner had he been hoisted up and a hitch taken in the rope than one of his fellow criminals was captured. Stopping only to secure a few yards of hemp, a slip knot was quickly tied around his neck and the wretch was soon adorning the hotel entrance by the side of the other dastard."

John Spencer, an employe of Ascot Park, also had much to say of the treatment of those caught in the act of rifling the dead of their jewels.

"At Market and Third streets Wednesday," said Mr. Spencer, "I saw a person who could not be called a man attempting to cut the fingers from the hand of a dead woman in order to secure the rings which adorned them. Three soldiers witnessed the deed at the same time and ordered the man to throw up his hands. Instead of obeying the command he drew a revolver from his pocket and began to fire at his pursuers.

"Without more ado, the trio of Uncle Sam's soldiers, re-enforced by half a dozen uniformed patrolmen, raised their rifles to their shoulders and fired. With the first shots the fleeing human vampire fell, and when the soldiers went to the body to throw it into an alley eleven bullets were found to have entered it.



The Magnificent Flood Residence on Top of Nob Hill, San Francisco.

POOL OF BLOOD GHASTLY SIGHT.

"Awful pictures of desolation met the eye on every side," said Leo Agoust, an acrobat. "We expected to be killed at any moment. Deafening reverberations of exploding dynamite numbed the nerves until ordinary sounds could not be distinguished. As we stood at the wreck of the ferry building waiting our turn to go across to Oakland a sneakthief attempted to wrest the rings from the hand of my wife, who was standing at my side.

"Before I could make a move toward the man a soldier stepped out of the jam of frightened, scrambling humanity and deliberately shot the pickpocket, who sank dead at the side of my wife. A small trickle of blood formed a ghastly pool on the uneven pavement, but no one paid any attention, for such occurrences happened hourly."

E. C. Howard of 1334 Figueros street, traveling representative for a St. Louis chemical concern, was among the cool-headed ones who were able to forget their own troubles and minister to the wants of others.

"I was awakened by the terrible shock of the earthquake and jumped out of bed," said Howard. "I peered out of the window as I was dressing, and could see clouds of smoke beginning to arise from a dozen points, seemingly close at hand. I left the house after calming its frightened and screaming occupants. I saw many maimed persons struggling to get out of that fearful ruin.

"There was a great difference in the way people took misfortune. Some were wringing their hands and acting like maniacs. Others went quietly about their work, not only looking after their immediate needs, but going out of their way to help others in distress. The house in which I had been a guest on Eighth and Filmore streets looked like a pasteboard box that had been twisted out of shape after the shock.

"I was informed that a number of fires were caused by women lighting their gas stoves to get breakfast, after the shock at about 5 o'clock. People were warned as much as possible against using their gas, but many disregarded the warning and many small explosions in various parts of the city kindled numerous fires that need not have occurred."

CHINESE UNDERWORLD REVEALED.

"Strange was the scene where San Francisco's Chinatown stood," said W. W. Overton, who went to Los Angeles with the first of the refugees. "No heap of smoking ruins marked the site of the wooden warrens where the slant-eyed men of the orient dwelt in thousands. The place was pitted with deep holes and seared with dark passageways from whose depths came smoke wreaths. All the wood had gone and the winds were streaking the ashes.

"Many white men never knew the depth of Chinatown's underground city. They often talked of these subterranean runways. And many of them had gone beneath the street levels, two and three stories. But now that Chinatown had been unmasked, for the destroyed buildings were only a mask, men from the hillside looked on where its inner secrets lay. In places they could see passages 100 feet deep.

"The fire swept this Mongolian section clean. It left no shred of the painted wooden fabric. It ate down to the bare ground and this lay stark, for the breezes have taken away the light ashes. Joss houses and mission schools, grocery stores and opium dens, gambling hells and theaters—all of them went. The buildings blazed up like tissue paper lanterns used when the guttering candles touched their sides.

"From this place, following the fire, I saw hundreds of fright-crazed yellow men flee. In their arms they bore their opium pipes, their money bags, their silks and their children. Beside them ran the baggy-trousered women, and some of them hobbled painfully.

"These were the men and women of the surface. Far beneath the street levels in those cellars and passageways common to the district were other lives. Women who never saw the day from their darkened prisons and blinking jailers were caught like rats in a huge trap. Their very bones were eaten by the flames.

"And then there remained only the holes. They pitted the hillside like a multitude of ground-swallow nests. They showed depths which the police never knew. The secrets of those burrows will never be known, for into them the hungry fire first sifted its red coals and then licked eagerly in tongues of creeping flames, finally obliterating everything except the earth itself."

SOLDIERS KILL TO END AGONY.

"Soldiers shot living beings to save them from the torture of death in the flames," said Miss Margaret Underhill of Chicago, who was the house guest of friends at Eddy and Larkin streets.

"The horror of it all was so overwhelming," said Miss Underhill, "that the sight of the dead became commonplace. The misery of the living received scarcely passing notice. Seconds seemed like hours and the two days like twenty years.

"I was in a three-story frame building. The house seemed to swing like the pendulum of a clock. Plaster was falling about me and pictures fell from the wall as I sprang from my bed.

"At that moment the brick chimney of the Sacred Heart College adjoining crashed through the ceiling, burying my bed beneath the debris. A second chimney fell a few feet behind me as I rushed down the hall. After the shock subsided I returned, dressed, and with the help of my friend moved my trunk to the street, where I left it to be devoured by the flames.

"Three times my friends and I stopped to make a camping place in the street where we thought the flames that were moving west would not reach us.

"We stopped to watch the soldiers, firemen and policemen, who, with timbers from the wreckage, were at work on the front of a burning frame building. The front of the three-story structure had fallen outward.

"Pinned beneath the structure was a man who pleaded piteously with the men who worked to release him. His head and shoulders projected from the wreckage. With his free arm he tried to help the workers by pulling at the tim-

bers. His eyes bulged from their sockets. One by one the men were driven back by the approaching flames, until at last only one, a soldier, remained. His face was blistered by the heat.

SOLDIER CALMLY KILLS SUFFERER.

"'Good-by,' the soldier shouted, as a sheet of flame swept around the corner of the building.

"The place was a roaring hell. The soldier picked up his rifle, which was standing against a broken timber, and turned to go. From where we stood we could see the very timber that held the man down smoke. His hair and mustache were singed.

"'For God's sake, shoot me,' he begged. His voice rose clear above the roar of the flames. The soldier turned and went back to within twenty-five feet of the man and said something. I could not hear what he said. Then he started to walk away.

"'Shoot me before you go,' the man yelled. The soldier turned quickly. His rifle was at his shoulder. The rifle cracked and the blood spurted from the head of the man.

"I covered my eyes and walked on.

"I saw mothers seated on the curbstones trying to still the hunger of their babies with beer. As we walked along the water front I saw them digging trenches and burying piles of dead. Garbage wagons served as hearses.

"Wearied with the day, I slept soundly through the night. My bed was the rocks on North Beach."

PANIC IN THE PALACE HOTEL.

Horatio N. Hovey of Detroit described the panic in the Palace Hotel.

"My family and I had apartments on the third floor of the Palace Hotel," said Mr. Hovey. "It was about 5:15 o'clock when I was suddenly thrown from my bed by the terrible shock.

"The panic in the hotel was awful. Everywhere persons were running about, evidently crazed or dazed. My daughters rushed into the corridor and almost at the same time my son Willard, who was sleeping in the third room of our suite, ran into my room. He was dazed.

"It was only the work of an instant to dress. Finally we crowded our way down the staircase to the main floor. The big lobby of the hotel was crowded. People half clothed ran about the place calling for their friends or relatives. We managed to reach the street, though our clothes were almost torn from our bodies in the crush when we attempted to leave the building.

"The scene in Market street was terrible. Great piles of debris were in the streets and wherever we turned we could hear the heart-rending cries of the victims. Many of the buildings had fallen and by that time the fire had begun to eat its way up Market street. In front of the Palace Hotel great crowds had gathered.

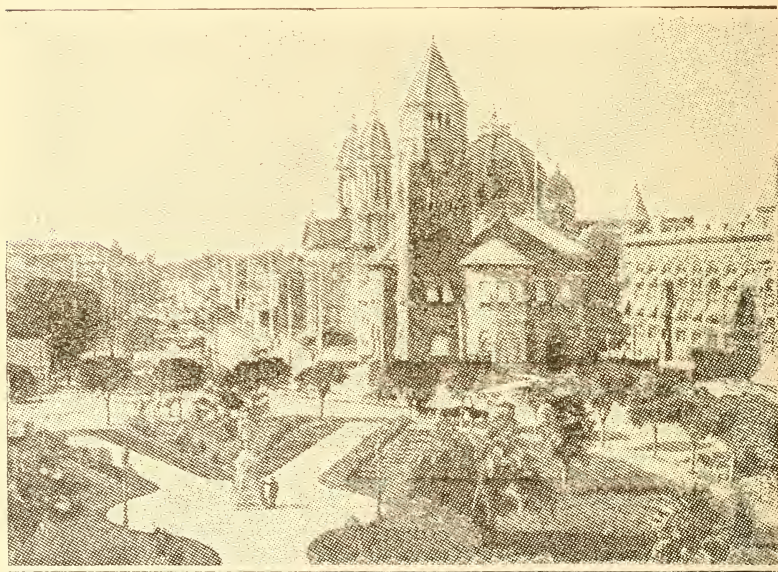


Houses in Chinatown Showing the Narrow Streets.

"As each second passed the scenes became more terrible. The fire was working its way up Market street and I saw that it would only be a short time before that part of the city would be burning.

"I finally got a cab, and after making a wide detour of the city, staying out of the fire zone, I reached the Union Ferry station. Just as we reached the landing a boat left. I chartered a tug and in that way reached Oakland, where we took the Overland limited.

"The whole thing seems like some awful dream. In fact, it all occurred so quickly that half of the details escaped me."



CITY OF SAN JOSE, CALIFORNIA.

The Picture, Photographed from the City Hall Plaza, Shows the New Postoffice on the Right, with St. Joseph's Cathedral Adjoining.

CHAPTER XI.

CHICAGO AIDS SISTER CITY.

San Francisco's Distress Recalls Days of '71—Religious and Business Interests Organize for Good Work—Cash Fund Is Raised—Huge Committee Formed—Financiers Raise Fund to Help Desolate—Detectives Sent to Maintain Order—Mayor Dunne Issues Proclamation—Vesuvius Funds Diverted.

“And the same hour was there a great earthquake and the tenth part of the city fell, and in the earthquake were slain of men seven thousand: and the remnant were affrighted, and gave glory to the God of Heaven.”—Rev., 11: 13.

Chicago, with the memory of the dire days of 1871 recalled, was quick to show sympathy in more than words. When the realization of the awful catastrophe became apparent Chicago, through its mayor, Edward F. Dunne, its council and its leading citizens, at once went to work.

The action was characteristic of Chicago. It was prompt. Within twenty-four hours this was done:

The Board of Managers of the Young Men's Christian Association arranged to forward contributions for a relief fund to be distributed by the San Francisco organization.

The directors of the Board of Trade met and formulated relief plans.

Mayor Dunne telegraphed the San Francisco mayor, asking what form of relief would be most acceptable.

CASH FUND IS RAISED.

The Chicago Commercial Association raised a large cash fund for immediate relief work.

The Chicago Clearing-house Association joined in the efforts to relieve the suffering in the earthquake zone.

Santa Fe and Union and Southern Pacific railways offered free transportation for all supplies sent by Commercial Association to San Francisco.

The postoffice clerks raised a large fund to swell the total of Chicago relief contribution.

The Congregational ministers as an association joined in tendering relief.

The Postal Telegraph Cable Company transmitted free domestic messages relating to the relief of sufferers when offered by duly constituted relief organizations or public officers in their official capacity.

PROMINENT CITIZENS GIVE THEIR SERVICES.

Mayor Dunne, by action of the council, appointed 500 of the most prominent and public-spirited citizens to act as a committee to take general charge. This body was made up of representatives of the various business organizations,

newspapers and civic organizations in the city. Each bank was requested to suggest one of its officers to represent it on the committee.

There were representatives from the Board of Trade, the Chicago Stock Exchange, the Chicago Clearing-house, the newspapers, the Illinois Manufacturers' Association, the Chicago, the Marquette, the Iroquois, the Jefferson, the Hamilton and other prominent clubs.

MAYOR URGES PROMPT ACTION.

"Chicago ought to do herself proud," said Mayor Dunne, "and should take the lead in giving quick relief. We have been through a terrible disaster ourselves, and know the generosity of the world. We should do all we can to aid San Francisco in her affliction. We all are actuated by the same purposes and have the same desires to alleviate the distress there as early as possible.

"The main thing is to send money. Chicago is so far away that it will take a long time to get supplies there. Money will do everything. It was certainly the worst character of a disaster that could happen. It was shocking. First the earthquake broke the waterworks and all means of safety and now the fire is threatening the city."

FIREMEN AID THOSE MADE DESOLATE.

The fire department, whose members, better than anyone else, knew the awful extent of the catastrophe and realized that half had not been revealed in the press dispatches, copious as they were, also came to the aid of the sufferers.

Fire Marshal Campion issued a proclamation calling on the members of the department for contributions. The response was prompt and gratifying. Beside the individual subscriptions, the Firemen's Association levied an assessment.

The police were not to be outdone in the matter of charity nor in aid of a potent nature in protecting life and property so far as in their power lay. Several hundred dollars were collected from the members of the department.

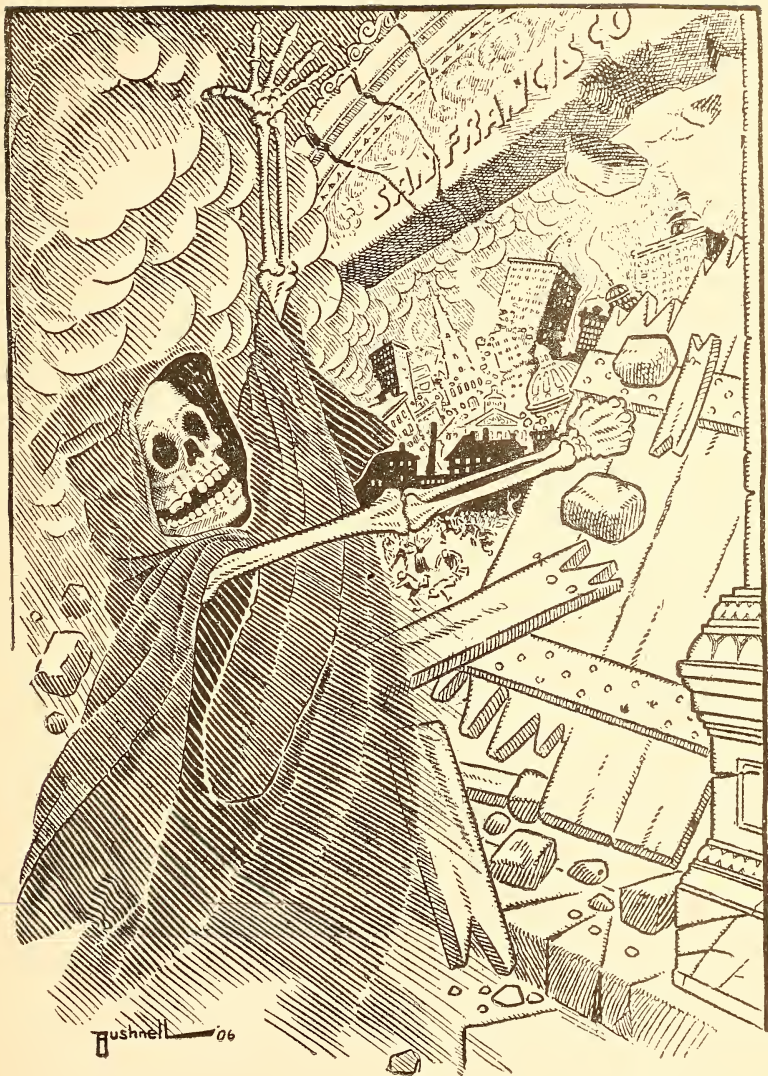
DETECTIVES ASSIST IN KEEPING ORDER.

With wide experience with crime and criminals, Chief of Police Collins recognized the fact there would be a hegrira to the stricken and devastated city.

On the first train after the seriousness of the situation was accurately known ten of the shrewdest thief catchers in Chicago left for San Francisco and remained until order had been restored and danger from thieves, pickpockets, murderers and other criminals had passed. How well they did their share of the hard task, the records of the police department of San Francisco testify.

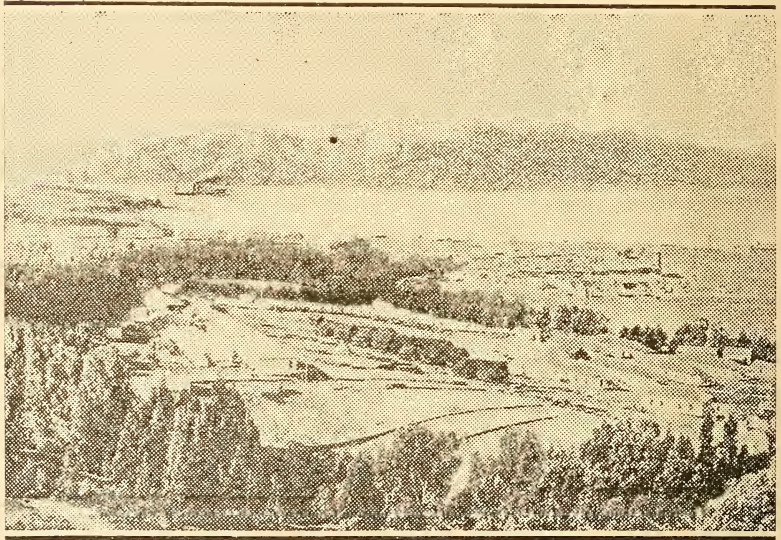
PROCLAMATION TO CHICAGOANS.

In addition to the organized relief work general appeal was made to the people of Chicago as a whole. This was in the shape of a proclamation issued by Mayor Dunne. It read as follows:



"To the People of Chicago: Recent dispatches indicate the appalling nature of the catastrophe at San Francisco. Distress and destitution must be widespread and all prevalent. Instant action is imperative. I call upon the citizens of Chicago to act promptly and generously in the face of the great disaster which has fallen upon our sister city until a relief committee is organized. I earnestly call upon the people of Chicago to be prompt and generous in this crisis. . . .
E. F. DUNNE, Mayor."

The Chicago Vesuvius relief fund, organized to aid the volcano victims in Italy, also joined in the general move to aid San Francisco. The directors added "Frisco" to the name of their organization and divided their funds equally between the California and Italian sufferers.



THE PRESIDIO, U. S. MILITARY RESERVATION AT SAN FRANCISCO.
Many Thousands Were in Camp There.

CHAPTER XII.

MEN AND WOMEN WEEP, CURSE AND PRAY.

Scenes Beyond Description Enacted When Fire Begins Its Work of Destruction Are Recited by a Survivor—Great Buildings Crumble and Fall Before the Mighty Sweep of the Blaze—Earthquake Shocks and Dynamite Explosions Make Deadly Din—Crowds, Driven Insane by Horror and Fear, Stand in the Street and Laugh Mechanically—Huge Rocks Fly Through the Air, Striking Down Dozens of Fleeing Victims.

Then the earth shook and trembled; the foundations of heaven moved and shook because he was wroth.—2 Sam. 22: 8.

When the city burst into flame scenes beyond the power of human beings to describe were enacted in all quarters of the stricken district. Men and women prayed, cursed and wept, and called on God to save them from the awful doom that threatened.

Mrs. Mary Longstreet related vivid impressions of the disaster:

"It was terrible, too terrible to describe," said Mrs. Longstreet. "We were all on the eighth floor of the St. Francis Hotel, our apartments connecting. I was awakened by a terrible shaking motion and jumped out of bed and tried to go to mother's room, but was unable to stand. The hotel building rocked like a ship in a storm, and it seemed to me that it tipped over so far at times that it could never straighten again.

"After the shock I went to mother's room. We went to the window and looked out across the square. The scene was horrible. Big buildings were in ruins, some completely demolished and others standing with great cracks in the walls, tottering and ready to fall.

"Suddenly, as we were standing there, the entire city seemed to catch fire. In all directions and as far as we could see the great tongues of flames leaped into the sky. Our building on Mission street, across from the Grand Opera House, was first to go. Terrified as we were, we stood by the window and in less time than it takes to tell it the entire part of the city between us and the ferry was ablaze. It was a beautiful, yet terrible sight.

"We remained in the hotel until 10 o'clock and at that time Mr. Wilcox succeeded in getting a carriage and an automobile. We then left the hotel and drove to the home of friends a mile away. When we got there we found the house in ruins. We then went to the home of the Tevis' and remained there until we were driven out by fire. Finally we found refuge at the residence of J. M. Winslow on Nob Hill.

TEN "HARDTACKS" FOR FOUR.

"We slept on the floor that night, but they had no food, and after scouring the city my brother managed to purchase ten hardtack biscuits and four boxes of sardines, and after eating these four of us made beds on the floor and tried to sleep.

"We had a little tallow candle in our room, and that we did not need. The hundreds of fires made the city as light as day, but it was a ghastly, sickening glow that made one tremble with fear. Words cannot describe human emotions at such a time as that, and I wish I could shake off that feeling that has clung to me ever since the first shock of that earthquake that aroused me from my slumbers.

"I saved some things—three pairs of shoes. I believe I put the shoes in a grip and brought them along. My diamonds and money I left in the hotel. But we all did that. No one at such a time cares for his effects. We expected death at any minute and were surprised that it did not come. Can you wonder that I saved the shoes instead of my more valuable possessions?

"I have a lot in San Francisco and was offered \$75,000 for it the day before the earthquake, but I refused it, as I had intended erecting a large office building on it myself. Now, I suppose, it is almost worthless, but that does not worry me.

"THAT NIGHT WAS AWFUL."

"I would be willing to forget the lot and all if I could only forget the terrible scenes that I was forced to witness in our many attempts to escape to a place of safety.

"That night was awful. We could hear the cries of the suffering people and the crash of falling buildings all night long. Van Ness avenue was crowded with people, mothers carrying babies, men and women packing on their backs what few things they had managed to save. Where all those people found food and shelter I cannot imagine. We had no water and almost died from thirst.

"You would never know San Francisco now. It is nothing but ruins. Did you ever see a child build a house with blocks and then knock it down? Well, that is the way buildings fell all over the city during the earthquake."

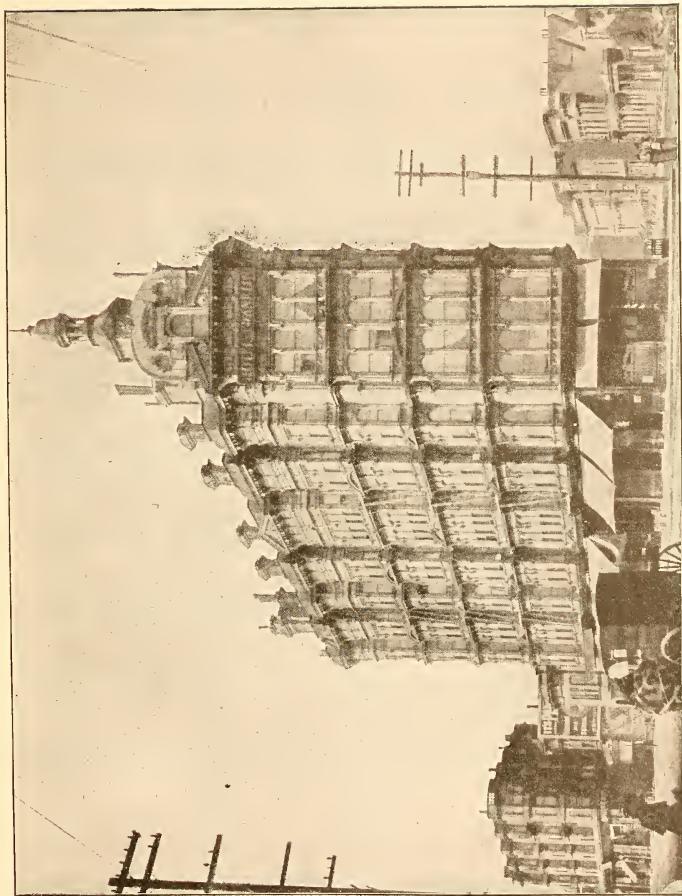
"I cannot describe it," said Mrs. Wilcox, when asked for her experience. "I woke at the first tremble, and oh! what a terrible sensation. Plaster fell from the walls and I expected at any second to see the St. Francis Hotel crumble to the earth.

LIKE THOUSANDS OF VIOLINS.

"With the earthquake came that horrible roar. It sounded like thousands of violins being played on the bass strings and all at a discord. It was the most harrowing sound one could imagine. Did you ever see the picture of hell which hangs in the Santa Barbara Mission? It was something like that, only a thousand times worse.

"We lost everything we had, all our clothing and jewelry, but we considered ourselves very fortunate in getting away with our lives. We had a hard time getting to Oakland, where we caught a train. The railroad people deserve great credit. On the train we were shown every courtesy. If people did not have money they were taken along just the same. Money was no object at that time."

Dr. Ernest W. Fleming, of Los Angeles, a guest at the Palace Hotel, told this story:



A Large Hotel on Market Street Was Completely Destroyed.

"I was sleeping in a room on the third floor of the hotel when the first shock occurred. An earthquake in San Francisco was no new sensation to me. I was there in 1868, as a boy 10 years old, when the first great earthquake came. But that was a gentle rocking of a cradle to the one of Wednesday.

"I awoke to the groaning of timbers, the grinding, creaking sound, then came the roaring street. Plastering and wall decorations fell. The sensation was as though the buildings were stretching and writhing like a snake. The darkness was intense. Shrieks of women, higher, shriller than that of the creaking timbers, cut the air. I tumbled from the bed and crawled, scrambling toward the door. The twisting and writhing appeared to increase. The air was oppressive. I seemed to be saying to myself: 'Will it never, never stop?' I wrenched the lock, the door of the room swung back against my shoulder. Just then the building seemed to breathe, stagger and right itself.

"But I fled from that building as from a falling wall. I could not believe that it could endure such a shock and still stand. The next I remember I was standing in the street laughing at the unholy appearance of half a hundred men clad in pajamas—and less.

MEN AND WOMEN IN NIGHT CLOTHES.

"The women were in their night robes; they made a better appearance than the men.

"The street was a rainbow of colors in the early morning light. There was every stripe and hue of raiment never intended to be seen outside the boudoir. I looked at a man at my side; he was laughing at me. Then for the first time I became aware that I was in pajamas myself. I turned and fled back to my room.

"There I dressed, packed my grip and hastened back to the street. All the big buildings on Market street toward the ferry were standing, but I marked four separate fires. The fronts of the small buildings had fallen out into the streets and at some places the debris had broken through the sidewalk into cellars.

"I noticed two women near me. They were apparently without escort. One said to the other: 'What wouldn't I give to be back in Los Angeles again.'

"That awakened a kindred feeling and I offered my assistance. I put my overcoat on the stone steps of a building and told them to sit there.

"In less than two minutes those steps appeared to pitch everything forward, to be flying at me. The groaning and writhing started afresh.

ALL STUNNED BY THE SHOCK.

"But I was just stunned. I stood there in the street with debris falling about me. It seemed the natural thing for the tops of buildings to careen over and for fronts to fall out. I do not even recall that the women screamed.

"The street gave a convulsive shudder and the buildings somehow righted themselves again. I thought they had crashed together above my head. The two women arose and started to walk. I followed in an aimless sort of way.

The street was filled with moving things again. The rainbow raiment had disappeared, and all were clad in street clothes. Every one was walking, but there was no confusion. We did not even seem in a hurry. Down Market street the flames were growing brighter.

"We walked without baggage to the St. Francis. Fires were burning down toward the ferry, but the fire department had turned it. We had faith in the fire department.

"Soon I became aware that squads of soldiers were patrolling the streets. It appeared perfectly natural. I do not think I wondered why they were there.

"Men and women were all about us. We looked at each other and talked—even tried lamely to joke. But every few minutes a convulsive quiver swept through the city. The others seemed to be shivering.

"I noticed that the eyes of the men and women were rolling restlessly. Their tones were pitched high. It seemed to grate on my nerves. Then I fell to wondering whether I was talking shrilly, too.

GROCER GAVE THE RIGHT CHANGE.

"I went to a grocery without a front and bought a few supplies—things that would make a cold lunch. The grocer did not even overcharge me. He was particular to give me the right change.

"The soldiers came and told us to move on. It seemed the natural thing to do.

"By this time the fire was creeping dangerously close. We would have walked to the ferry. We tried it on a score of streets, but that wall of fire was always there. It seemed to creep across in front of us.

"And in front of the fire always walked the soldiers. A number of times I hired express wagons. We would ride for a few blocks and get out on the sidewalk. In not a single instance were we charged more than a reasonable price for the ride.

"Once we loitered until the soldiers came up. A rough fellow, who had been standing by my side, tried to dart through the line. He looked like a beach-comber.

"A young lieutenant caught him by the coat. 'Here!' he called to his men. 'Shoot this man.'

"I hurried on, without looking back. I don't remember whether I heard a shot fired. But at the time it seemed so trivial a matter that I did not pay much attention."

EGGS COST \$1 APIECE.

John Singleton, a Los Angeles millionaire, his wife and her sister. The Singletons were staying at the Palace Hotel when the earthquake occurred. Mr. Singleton gives the following account of his experience:

"The shock wrecked the rooms in which we were sleeping. We managed to get our clothes on and get out immediately. We had been at the hotel only two days and left probably \$3,000 worth of personal effects in the room.

"After leaving the Palace we secured an express wagon for \$25 to take us to the Casino, near Golden Gate Park, where we stayed Wednesday night. On Thursday morning we managed to get a conveyance at enormous cost and spent the entire day in getting to the Palace. We paid \$1 apiece for eggs and \$2 for a loaf of bread. On these and a little ham we had to be satisfied."

STONES FLY LIKE RAIN.

Henry Bolton of Chicago, who was a guest at the Grand Hotel, New Montgomery and Market streets, told a tale of horror.

"I had a customer in my room in the Grand Hotel on the night of April 17," he said, "and when I finished selling him and his wife a bill of goods at 1:30 a. m. on the 18th it was too late for them to go back to Berkeley at that hour. Every room in the hotel was taken and I gave them my room, while I went to sleep with my friend, Mr. Roberts, Jr., in the Pacific Hotel.

"We retired about 2:30 a. m., and slept until we were awakened by the shock. In a second I knew it was an earthquake. The rocks or cement were pelting in the open windows like rain. I have some of these to show you as relics. The motion was a spinning one, grew right to left and back again.

"Everything was commotion in a moment. We dressed and went over to my room at the Grand Hotel. Our friends had gone, the door was unlocked, the ceiling was down, the walls were all in and all over the floors of the halls. We rushed out in the street only to find wreckage everywhere. On Market street fronts of buildings had fallen. Little blazes of fire broke out in all directions. Soon small buildings were in ruins. Bodies were buried beneath them. Near the Grand on the street east a drove of steers were being driven to slaughter.

SMOKE POURS OUT OF DEBRIS.

"The buildings on either side were down; the street was a narrow one; the steers were piled up in a heap, buried beneath the rocks—about twenty-five of them—five or six head escaped unhurt, as had the driver. Such a sight! People coming from everywhere.

"Smoke was pouring out of the mass of debris. As far as our eyes could see there was evidence of fire. We wended our way zig-zag about and went down in the Mission districts—the poor people of the lower classes—the women were carrying their children to a place of more danger than of less. By this time we began to see that there was danger of being cut off by the fires and we retreated as fast as we could—none too soon.

"The next twenty-four hours were spent by the people in moving and in abandoning their belongings. Not one per cent of the goods that people attempted to save was saved. Such a day! About 10 a. m. we began to see evidences of our hotels (the Grand and the Palace) burning; until then we had not thought it possible the flames would reach them. We went to our hotels to save what we could. I packed my grip, taking only what I needed or really wanted;



Interior of a Palatial Home Destroyed by the Earthquake.

I managed to save my photo book, my order book, clothing and valuables. The water mains were put out of service and there was no water.

MARTIAL LAW BEGINS QUICKLY.

"It was something remarkable to note the promptness with which the government took charge of matters through the military channels. By 9 o'clock in the morning of the 18th the city was under martial law—troops everywhere. In places on Market street the street is sunken from one to ten feet.

"Fire now raged about us. Dynamite was used by tons, blowing up buildings. The wind blew first from the south, then from the west, then from the east; I never experienced anything like it before. Thus the fire spread. We moved our grips a dozen times. And the personal trunk of my friend, Mr. Roberts, we moved fully a dozen times from place to place until night.

"We registered in the Savoy Hotel, just opposite the park and across from the new Francis Hotel—four of us in one room. There we had our supper.

"There was another slight shock which started the women to screaming and they fled. The dining room was on the fourth floor. We, however, sat still and ate our supper. As night came on we went up to Nob Hill and in every direction was a furnace of flame. Such a fire! In fact, fire on fires.

GRAND AND AWFUL SIGHT.

"We then came down through the center of the city near the ruins of the Palace and Grand. It had been supposed that the fire was under control, but now all hope was gone. The Crocker Building had at last received its baptism of fire; this was the last hope of saving the section where the Lick House and the largest banks were located. Such a rain of fire! The sky was filled with sparks from Chinatown. A grand and awful sight!

"We decided to move and a conference was held. We concluded to flee to Oakland; but first took a stroll into the western section of the city. The flames were sweeping on toward the center of the city at a great rate.

"The men of the party fully decided now to move, and without hunting up the landlord—who had already gone—we skipped our second hotel bill in a single day. I have keys from both hotels as souvenirs.

"We walked miles to get to the ferry boat. Such sights! The car rails were twisted up, broken apart, separated by six inches in places; great cracks in the earth. On board the ferry boat we ate another supper, journeying nowhere in the middle of the night.

"Reaching Oakland we traveled, footsore and weary, through its streets, seeking a resting place. We called at hotels only to see, at a glance, that there was no room. They had every chair full of paid guests at 50 cents and \$1. a head for sitting up. Our only hope was to obtain shelter and rest in a private house. So everywhere we saw a light we rang the bell, only to be told of likelihood of our being able to find accommodation in the center of the next block. We finally found a dear fellow who took us in and gave us his beds; he, his wife and baby were sleeping on the parlor floor for fear of another quake.

AFRAID TO SLEEP IN HOMES.

"It was a sight long to be remembered to see the people asleep in their auto cars, on the porches, on the terraces of their homes, rather than in their homes.

"There were two of my competitors in the Palace Hotel and two in the Lick House. Elmer Schram of Schram Bros., Chicago; George L. Roberts of the Tabor-Prang Art Company, Springfield, Mass.; John W. Herwig of the H. Lieber Company, Indianapolis, and M. Schloss of the W. Franklin Company, Chicago. One of those men was accompanied by his wife.

"The members of the party who were without their wives formed a sympathetic quartet, as all four of us had lost all of even our commercial baggage in the fire. We lost, all told, forty-four trunks and samples, valued at \$7,500. In addition to our commercial baggage, we lost much of our personal baggage. Mr. Schram, who was accompanied by his wife, lost everything except what he had as he left the hotel.

BLASPHEMY IS AWFUL.

"One thing that impressed us all was the blasphemous language used on the street, and the great number of drunken men. Never in any one period of twenty-four hours have I heard so much blasphemous language or seen so many drunken men. Yet the great crowd was orderly and obedient to every command of the law—though I learned that numbers of men were shot down while perpetrating the awful crime of robbing the dead.

"The city was under military law almost from the inception of the terrible ordeal caused by the earthquake. To see hundreds of fires break out simultaneously in all parts of the city and to note the destruction was something wonderful and terrible."

BIG BUILDING ROCKS LIKE BOAT.

J. A. Floyd of Chicago, a Pullman conductor, who was in the Terminal Hotel when the crash came, described his experiences as follows:

"I was asleep in my room on the fourth floor of the Terminal Hotel, in Market street, two blocks up from the ferry, when I was awakened by plaster hitting me in the face. I was unable to stand upright because the entire building was rocking like a boat in a gale. I clung to the sill of the door, while I could hear crash after crash of falling buildings and the shrieks of the injured.

"As soon as I could I ran downstairs, before stopping to dress, and joined the throng of unclad men, women and children who filled the street. All around us we could hear the cries of the injured and helped them as best we could. We broke open drug stores and confiscated what we found in our effort to help the injured.

"When things were quieter I went back to my room to dress. I then discovered for the first time that the entire wall had fallen out. I then joined in the work of rescue—I call it that, although there was nothing left to rescue.

SEES SCORE ROASTED TO DEATH.

"All this took only a very few minutes. When I arrived on the street level again the flames commenced. They seemed to jump from both sides of Market street at once. A big wholesale drug house at Seventh street exploded, throwing out brilliant colored particles for hundreds of feet. The ashes and sparks fell with awful torture on the scantily protected backs and faces of the women and children.

"Soon the wagons of dead began to arrive. Express wagons, cabs, automobiles, and vehicles of all kinds dashed by all piled high with ghastly loads.

"With three or four sailors from the water front I ran up Seventh street to aid a score of men and women who had been crushed under a flat building. We could not help them. We had to stand quiet and inactive while they were slowly roasted to death.

"The street level then had become very irregular, depressions and humps of four feet being common. Like a mockery, the water from the burst mains spouted into the air, while the firemen were attempting to get water to fight the fire, which by this time was carrying everything in its path.

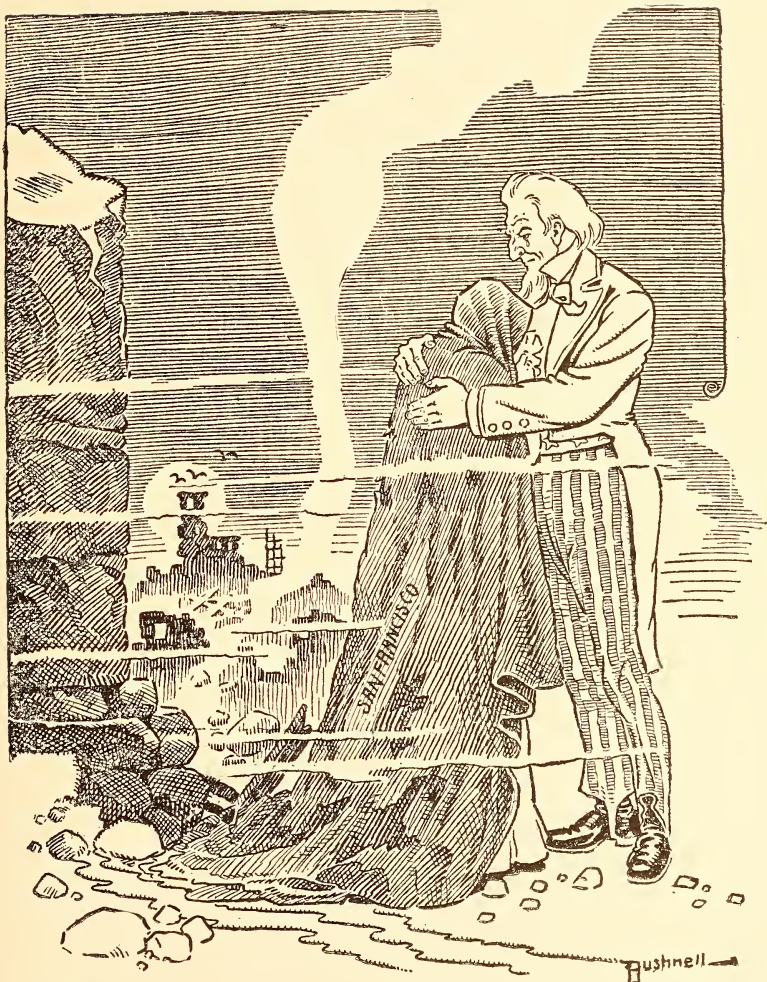
"One man in a light runabout, clad only in his underclothing, then rushed by. Turning his machine, he ran round and round at Market and Seventh. The maniac injured a score before he was controlled.

"Everybody in the crowd was absolutely demoralized. Frantic women from the aristocratic hotels ran side by side with the denizens of the underworld.

"With 7,000 other refugees I crowded on an Oakland ferryboat and left the scene. The train soon left, going by Stockton, where the track was not torn up."



THE LICK MONUMENT AT THE CITY HALL,
Built in Memory of the Founder of Lick Observatory.



Bushnell

CHAPTER XIII.

SHOCK IS FELT AROUND THE WORLD.

Delicate Scientific Instruments Record Terrific Seismic Disturbance Thousands of Miles Away—Marked at National Capital—Cause of Earthquake Is Given—How the Shocks Are Recorded—Startling Theories Advanced and Disputed—Blamed to Boiling Heart of Globe and Fracture of Shell.

“Thou shalt be visited of the Lord of hosts with thunder, and with earthquake, and great noise, with storm and tempest and the flame of devouring fire.”—Isaiah, 29: 6.

The shock that brought death and destruction to San Francisco was felt around the world. Scientists who have made the study of earthquakes and their accompanying phenomena a specialty were enabled by their delicate instruments to record earth waves imperceptible to man.

These reports show the earthquake shock traveled around the globe in an incredibly brief period of time, measured by minutes and seconds. Scientists disagreed as to the starting point of the wave. It may have taken place in the South American volcanic region or under the bed of the Pacific ocean. San Francisco got the result of the wave as it struck the continent, and almost simultaneously the instruments in Washington reported a decided tremor of the earth, and the oscillations of the needle continued until about noon.

MARKED AT THE NATIONAL CAPITAL.

At the weather bureau the needle was taken from the pivot and had to be replaced before the record could be continued. Other government stations throughout the country also noted the earthquake shock.

There seems to be no reason to believe the earthquake shock in San Francisco had any direct connection with the eruption of Vesuvius. That eruption has been recorded from day to day on the delicate instruments established by the weather bureau at the lofty station on Mount Weather, high up in the Virginia hills.

This eruption of Vesuvius did not disturb the seismograph even at the period of greatest activity, but apparently Vesuvius and Mount Weather were like the lofty poles of two wireless telegraph stations, and between them there passed electrical magnetic waves encircling the earth. The records made at Mount Weather were of the most distinct character, but they showed disturbances in the air of a magnetic type and did not indicate any earthquake.

CAUSE OF EARTHQUAKES IS GIVEN.

In explaining the San Francisco trembling, C. W. Hays, the director of geology in the United States geological survey, explained that earthquakes are, according to modern scientific theory, caused by subterranean land slides, the

result of a readjustment as between the solid and the molten parts of the earth's interior.

"The earth," he said, "is in a condition of unstable equilibrium so far as its insides are concerned. The outer crust is solid, but after you get down sixty or seventy miles the rocks are nearly in a fluid condition owing to great pressure upon them. They flow to adjust themselves to changed conditions, but as the crust cools it condenses, hardens, and cracks, and occasionally the tremendous energy inside is manifested on the surface.

"When the semi-fluid rocks in the interior change their position there is a readjustment of the surface like the breaking up of ice in a river, and the grinding causes the earthquake shocks which are familiar in various parts of the world."

There are apparently three distinct weak spots in the United States, which are peculiarly subject to earthquake shocks. There is one weak area along the southern Atlantic coast in the vicinity of Charleston, another is in Missouri, and the third includes the Pacific coast from a point north of San Francisco down to and beyond San Diego.

HOW THE SHOCKS ARE RECORDED.

The delicate apparatus used in recording the movements of earthquakes consists of a pen drawing a continuous line on a cylinder which revolves once every hour and is worked continuously by clockwork in an exact record of time. It moves in a straight line when there is no disturbance, and it jumps from right to left and back again when there are serious oscillations of the earth. The extent of these movements of the pen measures the grade of the oscillation. It may seem like a fantastic statement, but this seismographic pen is adjusted so delicately that it will register your step in its vicinity.

The instrument is mounted on a solid stone foundation and what it registers is the effect of your weight pressing upon the earth.

Most of the scientists are inclined to believe that the boiling process in the interior of the earth, although it goes on continuously, is subject to periods of greater or less activity. This activity may be, however, purely local, according to the scientific theory, for otherwise there would be eruptions in all the active volcanoes of the earth at the same time, and there would be earthquakes in every one of the areas where there is liability to seismic disturbances.

CHAPTER XIV.

BULLET BRINGS MERCIFUL DEATH.

San Francisco Mining Engineer Witnesses Shocking Sights—Policeman Shoots and Ends Sufferings of Poor Wretch Pinned Under Wreckage, With Fire Eating Away His Feet—Maddened Horses and Cattle Dash Through Crowded Streets, Trampling Down Human Beings—Persons Who Kneel to Pray Are Crushed to Earth by Falling Timbers—Agonized Women, Carrying Dead Babies in Their Arms, Vainly Plead for Assistance.

And the heaven departed as a scroll when it is rolled together, and every mountain and island were moved out of their places.—Rev. 6: 14.

Crushed under heavy timbers and stones, and with no possible escape from death, dozens of persons cried in agony for a speedy end. Many of them were mercifully shot by soldiers or policemen.

E. Call Brown, a San Francisco mining engineer and geologist, saw strange and awful sights from the windows of his room in the Argyll Hotel, on McAlister street.

"The most terrible thing I saw," said Mr. Brown, "was the futile struggle of a policeman and others to rescue a man who was pinned down in burning wreckage. It was a race with the fire and a losing race. The helpless man watched it in silence till the fire began burning his feet. Then he screamed and begged to be killed. The policeman took his name and address and shot him through the head. Sentimental tradition was abeyant in us for many hours there and we did the things which we found to do. Utility was our only standard of action.

"I was awakened by a slight, quivering sensation. I sprang out of bed and ran to the window. I was there looking out at the city hall when the first real shock came.

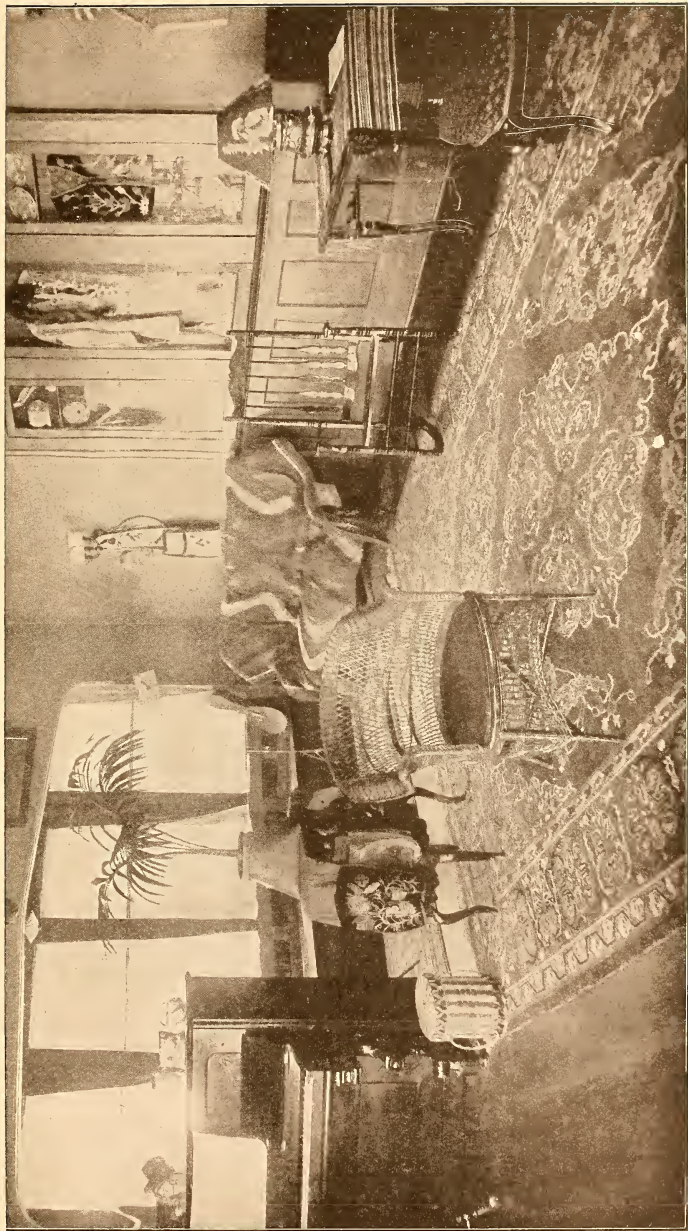
"It seemed to be a great throw of the earth from north to south. The first shock flung the whole front of the old supreme court building into a vacant lot on Larkin street. There were two policemen talking together there and they were buried deep in a mass of brick and stone. I stood there at the window and watched."

PASS PILES OF HUMAN BODIES.

Mr. and Mrs. W. R. Harriman, of Baltimore, were quartered on the twelfth floor of the St. Francis Hotel when the shock came.

"The room seemed to twist out of shape," said Mr. Harriman, "and the furniture was disarranged. The door stuck and it required all my strength to open it. Men were shouting, women screaming hysterically and everybody endeavoring to get to the elevators and stairways. It was soon discovered that the elevators were not running and the people literally fell and rolled down the narrow stairs.

"My wife and I descended and on the first floor found a mass of people whom the hotel employes were imploring to remain there, as it was the safest place, but all seemed determined to get outside.



Elegant Home Destroyed by the Earthquake.

"Dressing as we ran, my wife and I found that we had grabbed up enough clothes to present a respectable appearance, except that we had no shoes. We gradually fought our way northward, finally reaching one of the ferries.

"All along the way we saw bodies of human beings who had met death in the most horrible forms. Some had been crushed by falling walls, others had jumped from high buildings, while still others had been trampled to death by the excited populace. Horses, having broken their hitch reins, were dashing frantically up and down the streets and some people were killed by the frightened animals. Live wires menaced the people everywhere and many met death by coming in contact with them."

TERRIBLE NOISE FROM QUAKE.

"I was on the fifth floor of the Palace Hotel, in bed, when the shock came," said E. S. Ransom, of Chicago. "Just as I was, in a night shirt, I made a rush for the stairs. Everybody else in the hotel was rushing down the stairs and as far as I know everybody reached the street safely.

"The most terrifying thing was the noise, caused by the twisting and straining of the great buildings.

"Before the second shock I ran back into the Palace to get my clothes and suitcase. When I tried to find my way out of the city I was met by flames first on one side and then on the other. I finally reached the ferry house and boarded a boat for Oakland.

"I saw from 300 to 800 dead on the streets in one section. One hour after the earthquake the sailors and miners, who lived in the cheap lodging houses, were pillaging stores and residences and were robbing the dead and wounded on the streets."

PEOPLE IN ATTITUDE OF PRAYER.

The steamer Itauri, bound for Hamburg, Germany, took the first refugees by water from San Francisco to Los Angeles.

"The Itauri left San Francisco Thursday afternoon when the flames seemed to be at their height," said First Mate Charles Appen. "As seen from the bay it was a sublime but terrible spectacle. We were anchored more than a mile out in the roadstead, but the wind as it swept over the burning city and down upon us was like the breath of a demon.

"At times it was impossible for us to remain on deck. The water of the bay became heated. The terrific concussions of dynamite and the firing of artillery along the water front by the soldiery in their attempts to stop the flames brought hundreds of fish to the surface.

"Our clearance papers were burned, but we could not retain our anchorage, and late Thursday afternoon we started toward the open sea.

"Wharves along the water front which had not been consumed were filled with people. They beckoned to us that they needed assistance. We could see them holding up their hands in the attitude of prayer. It was the thought of self-preservation for us all that kept the Itauri's course unchanged.

"As we passed through the Golden Gate the hills on each side were mountains of flame. In some places the earth spots showed where the buildings already had been consumed, but these were few.

"It was dusk when we passed out of the harbor. The waves, instead of scintillating with the rays of the setting sun, burned scarlet from the fires to the right and then to the left.

"At midnight we were well out to sea; I should say thirty miles, but the flames were still visible, and until almost the dawn of another day we stood on deck and watched the reflection of the flames as they played to and fro on the cloud mountains which hung as a pall over the ruined city."

RICH MEN TELL OF RESCUE WORK.

James D. Phelan, former mayor of San Francisco, one of the city's richest men and one of the heaviest losers, said:

"When I was awakened in my house by the shock I made my way down town toward the fire, which was raging in two directions. One branch of the fire destroyed my office building on Market street and the other my home in the Mission. Of my personal effects I saved but few. My family left my home and proceeded to Golden Gate Park, when I followed and pitched two tents which I happened to have stored at my home.

"Later I accompanied my family to Burlingame, twenty miles south, in an automobile, and returned to aid in the rescue work."

Rudolph Spreckels said: "I volunteered as a special officer and assisted the firemen in trying to check the fire. My experience at Van Ness and Union streets was certainly a thrilling one."

Herman Oelrichs said: "I was in the St. Francis Hotel, and lost all my personal effects except the suit of clothes that I had on and two flannel shirts. I did what I could everywhere to relieve the suffering."

LIKE GROWLING OF WILD BEAST.

"I was up at the time of the shock," said Pol Plancon, the singer, "and was looking out of my window to see what sort of a city it was. Suddenly everything seemed to swing. I felt like a bird in a swinging cage, and there seemed to come a strange growling sound like a wild beast in a cage and a rumbling noise. The place was swaying, and I thought that each sway would be the last.

"I got downstairs in my underwear and overcoat, and afterward in the square I met Mme. Sembrich and Emma Eames. Every one was calm. The calmness of the American is wonderful. They are the coolest people in the world in the face of danger, and the women are as calm as the men. I never saw such wonderful grit and nerve in my life. Every one acted as if the whole thing was scheduled and they had been expecting it. No one lost his head for a moment. The Latin races are different. They are all excitement in sudden danger and go to pieces. My loss was about \$40,000."

Mme. Sembrich told her experience thus: "I was wakened suddenly in my room at the St. Francis by the plaster and furniture falling on my bed. The piano was thrown clear across the room. I sprang out in my night clothes and rushed out in the hallway, where I found other guests running about. Some gentleman gallantly handed me an overcoat.

"I got downstairs in my bare feet before I realized what I was doing. I then went back and got my clothes, dressed hurriedly and got out and went out into Union Square, where I met Pol Plancon of the company. He was in his shirt sleeves. The other members of the company joined us and the street began to fill with people. Herr Dippel helped get some of the effects out of the room and we went up on the big hill with Mme. Eames and Dr. Tevis, who kindly invited us to his house. But none of us would have dared to remain indoors for any amount of money.

"We sat on the steps until the fire drove us away, and finally took refuge on the sand banks of the water company reservoirs. We made ourselves as comfortable as possible for the night.

"We did not sleep, for that was impossible. What I have on now is all I saved. I did not even retain my toothbrush, and I have not been able to buy one since the fire.

"One thing I noticed was the calmness of everybody. The rich and poor mingled on terms of equality. Each one tried to help the other. Dr. Tevis, in attending to our needs, neglected to save his own household goods.

"I got my trunks to Dr. Tevis', where I supposed they would be safe, but they were lost later. My loss altogether is about \$4,000."

MOTHER CARRYING DEAD CHILD.

Mme. Gorlitz said: "We were roused like the rest by the falling of plaster and furniture at the Palace. We packed our effects hastily, with plaster falling about us. We paid a man \$25 to get our trunks to the St. Francis, that went later, and we lost everything. We got into an old cart and were taken to a friend's house on Clay street, where fourteen persons were accommodated on mattresses.

"We got an auto to get our goods out of the fire line. The police confiscated it for ambulance purposes and we had to let it go. I did not dare to sleep in the house, but sat upon the steps all night. We lost everything we had.

"I saw some terrible sights. I met a woman carrying a child, and she asked me if I would help her revive it. I saw at once the child was dead, for its skull was crushed in. I did not have the heart to tell the mother the facts. As we passed down to the ferryboat in an old cart we saw the bodies of the dead and wounded lying on the street and everything wrecked. All below the Palace Hotel everything was gone."

Louise Homer, the singer, said she fled wearing a pair of her husband's trousers.



Sample of San Francisco Architecture.

"We went up on the hill and a Mr. Pope, on Pacific avenue, took us into his house," she related. "We were afraid to go indoors and slept all night in his automobile, and were very comfortable. His cook gave me the only pair of shoes I had. While they were five or six sizes too large, I thank the cook for her kindness, and keep the shoes as a souvenir. The furniture danced all over the room and the wardrobe fell flat. Glass was scattered, and I thought the end of the world was coming."



NOB HILL ON CALIFORNIA STREET.

Where the Homes of the Great California Millionaires Were. The View Shows the Crocker, Huntington and Flood Residences.

CHAPTER XV.

GENERAL PLAN OF RELIEF.

All America Rushes Money and Food to San Francisco—Fifty Million Dollars Quickly Pledged—Government Saves Hundreds from Starvation—Theaters Give Big Benefits—One Man Donates \$1,000,000—Thousands of Refugees Cared for in Nearby Places—Red Cross Distributes Immense Amount—Europe Offers Help—Kings and Queens Send Condolences.

For nation shall rise against nation and kingdom against kingdom; and there shall be famines, and pestilences, and earthquakes in divers places.—Matthew 24: 7.

Within an hour from the time the fate of San Francisco became known to the world, relief measures were being taken in every state and almost every city in America.

The response was magnificent, fifty million dollars being in sight before the fire had ceased, and assurances were given that more could be raised if it were necessary.

Besides the money aid hundreds of trainloads of provisions and clothing were rushed forward, the government sending a score and almost every city of any size contributing from one to a half dozen.

J. Pierpont Morgan, Jr., treasurer of the New York fund, forwarded \$300,000 of the fund to a bank in San Francisco by telegraph. After collecting more than a half million dollars for the relief of the destitute earthquake victims, the committee of the Chamber of Commerce decided that its fund should be devoted to reviving the commerce of San Francisco.

Wholly foreign contributions, while deeply appreciated, were not accepted, according to the precedent established by the president in declining a gift of \$25,000 from a German steamship line. America, although touched by the evidences of foreign generosity, felt able to care for its own.

Unaccounted thousands sent their contributions, and the grand total of the relief fund never will be known. The voiceless appeal of San Francisco was heard around the world. From every city and town in this country, from European capitals, and from far Eastern communities came news that all humanity in expressing its sympathy also offered every material assistance. Money and supplies flowed toward the stricken metropolis and the other cities by the Pacific affected by the recent disaster with a generosity unprecedented in history.

ONE MAN GIVES \$1,000,000.

History is without a parallel in the prompt and generous response to the appeal for aid to the San Francisco sufferers. So great was the response that before the end of the third day more than \$10,000,000 was in hand and \$10,-

000,000 more pledged. Many lavish individual subscriptions were made, the largest being that of James D. Phelan, former mayor of the stricken city, who donated \$1,000,000. Some of the early contributions of \$5,000 and more were as follows:

| | | | |
|--|-------------|---|--------|
| U. S. Government..... | \$2,500,000 | Columbus, Ohio, Board of Trade | 20,000 |
| Chicago | 2,000,000 | Grand Rapids, Mich..... | 15,000 |
| New York | 2,500,000 | Duluth | 15,000 |
| James D. Phelan..... | 1,000,000 | New Britain, Conn.:..... | 15,000 |
| Boston | 500,000 | Government of Mexico.... | 15,000 |
| E. H. Harriman | 200,000 | E. J. & E. Ry., L. S. & E. Ry., Ill. Steel Co..... | 15,000 |
| Philadelphia | 200,000 | Goldfield, Nev. | 11,000 |
| St. Louis | 200,000 | Drexel & Co., Phila..... | 10,000 |
| Pittsburg | 150,000 | Superior, Wis. | 10,000 |
| Portland, Ore. | 130,000 | Omaha | 10,000 |
| State of Massachusetts.... | 100,000 | Americans in London..... | 10,000 |
| Canadian Government | 100,000 | Reno, Nev. | 10,000 |
| Standard Oil Company:... | 100,000 | Houston, Tex. | 10,000 |
| John D. Rockefeller..... | 100,000 | Salt Lake City..... | 10,000 |
| Philadelphia (council) | 100,000 | Des Moines, Iowa..... | 10,000 |
| C. J. Burrage, Boston..... | 100,000 | Canadian Pacific Ry..... | 10,000 |
| Sacramento, Cal. | 100,000 | Indianapolis | 10,000 |
| Texas Legislature | 100,000 | National Carpenters' Union | 10,000 |
| Cleveland | 100,000 | H. C. Frick | 10,000 |
| Baltimore | 100,000 | Gordon Blanding | 10,000 |
| Oakland, Cal. | 100,000 | Brown Bros. N. Y. | 10,000 |
| Wm. Waldorf Astor..... | 100,000 | Charles Sweeney, N. Y.... | 10,000 |
| Andrew Carnegie | 100,000 | Heidelbach-Ickleheimer, New York | 10,000 |
| U. S. Steel Corporation.... | 100,000 | Carpenters' Union, Chicago | 10,000 |
| Lewis & Clark Exposition | 100,000 | Importers and Manufac- turers' Millinery Co..... | 8,790 |
| Seattle, Wash | 90,000 | Jacksonville, Fla. | 7,000 |
| Ladenburg, Thalman & Co | 75,000 | Chicago Daily News | 6,000 |
| Kansas City | 75,000 | Ft. Worth, Texas..... | 6,000 |
| St. Paul | 75,000 | Savannah, Ga. | 5,500 |
| United Railway Invest- ment Co., New York.... | 75,000 | Richmond, Ind. | 5,000 |
| Cincinnati | 73,000 | Worcester, Mass. | 5,000 |
| Guggenheim Bros., N. Y.. | 50,000 | Nat'l Park Bank, N. Y.... | 5,000 |
| Milwaukee | 40,000 | Carnegie Hero Fund..... | 5,000 |
| City of Mexico | 30,000 | Clarence Mackay, N. Y.... | 5,000 |
| President Diaz of Mex.... | 30,000 | | |
| Spokane, Wash. | 30,000 | | |
| New Haven, Conn..... | 30,000 | | |
| Towns in Connecticut.... | 30,000 | | |
| Minneapolis | 30,000 | | |



How the Flowers Grow in San Francisco.

| | | | |
|---------------------------|--------|------------------------------|-------|
| Detroit | 26,500 | Wisconsin Masons | 5,000 |
| Victoria, B. C. | 25,000 | Charleston, S. C. | 5,000 |
| J. P. Morgan & Co. | 25,000 | Burlington, Iowa | 5,000 |
| B. P. Order of Elks | 55,000 | Russell Sage | 5,000 |
| W. K. Vanderbilt | 25,000 | Mrs. John W. Mackay | 5,000 |
| “A Friend of Humanity,” | | Swift & Co., Chicago | 5,000 |
| New York | 25,000 | Armour & Co., Chicago | 5,000 |
| Toronto | 25,000 | Montgomery Ward & Co., | |
| Bank of Commerce, | | Chicago | 5,000 |
| Toronto | 25,000 | Lumbermen’s Association, | |
| Kuhn, Loeb & Co. | 25,000 | Chicago | 5,000 |
| Speyer & Co. | 25,000 | Sears, Roebuck & Co. | 5,000 |
| Los Angeles | 23,000 | International Harvester Co. | 5,000 |
| Providence, R. I. | 20,000 | Chicago Brewers’ Asso- | |
| Davenport, Iowa | 20,000 | ciation | 5,000 |
| Stockton, Cal. | 20,000 | Marshall Field & Co. | 5,000 |
| Columbus, Ohio | 20,000 | Moline, Ill., manufacturers. | 5,000 |

THOUSANDS OF REFUGEES TAKEN.

The San Francisco authorities sent telegrams to the mayors of nearly every city of California on the second day, asking how many people they could care for. Berkeley at once took 4,000 refugees, Alameda 3,000, and both later cared for many thousands more. A committee was sent to the California powder works at Pinola, and other industrial companies, and secured the accommodation of 5,000 people in their buildings. More than double this number were cared for at points along the bay north of Berkeley. Stanford, Fresno and Hanford took 1,000 to 1,500 persons each.

SEND CARLOAD OF BAKED BEANS.

The first train from Chicago to reach San Francisco consisted of eleven cars, loaded as follows: Blankets, three cars; quilts and comforters, three cars; rice, one car; baked beans, one car; canned meats, two cars; biscuits, one car.

Before aid had come from outside the laws of the United States were violated every minute. Supplies were purchased in the open market, government property was handed out without receipts to anybody who seemed to have authority to receive it, and the distribution of supplies was wholly free from the slightest suspicion of red tape.

In spite of this fact, the president and Secretary Taft were proud of the fact that the army organization proved itself able to withstand the sudden strain put upon it, while the enlisted man showed his ability to act at a distance from his commissioned officer with an intelligence and an initiative which would be impossible in the European armies.

Major F. H. Keesling, of the First battalion of the coast artillery, N. G. C., was in command of the military relief measures in Golden Gate Park. His head-

quarters were established at the tennis courts. Supplies of sugar, coffee, bread, and canned goods were distributed there, and at another point some prepared meats were given out.

Army tents, as many as could be obtained, were set up everywhere, and other canvas protections were made of blankets, rugs, carpets, bed clothes, and every other sort of material that could be used for the purpose.

In some places refugees had cleared out spaces beneath the thick shrubbery and the semi-tropical plants for which Golden Gate Park is famous, and under these found protection from the chilly night air.

30,000 SHELTERED IN 4,000 TENTS.

In the Presidio more than 30,000 people were sheltered in 4,000 tents furnished by the government, beginning with the third day. A constant stream of wagons and pedestrians entered and left the reservation. Vehicles of every description were utilized to carry household effects and provisions, and altogether generally satisfactory conditions prevailed. The commissary department cared amply for the people within the reservation and those persons who resided close by. Provisions were distributed with a liberal hand, flour, beans, canned goods, eggs and milk having been given out in large quantities. This milk and eggs were served only to young mothers and infants and to families in which there were young children.

In the western addition west of Van Ness avenue every precaution was taken to supply the immediate needs of the people. Water wagons went through the streets twice daily, serving water to those whose houses had been cut off from running water. Milk wagons peddled milk at 5 and 10 cents a quart, and meat was distributed free to the needy and sold at reasonable rates to those who could afford to pay.

Secretary Leslie M. Shaw, of the treasury department, announced on the third day that he had lifted the \$10,000,000 limit on telegraphic transfers to San Francisco. The treasury department, he wished it known, stood ready to offer any relief consistent with safety to the national banks of San Francisco and the stricken district generally. Any institution offering recognized collateral was given equivalent value in government deposits. Secretary Shaw also announced that he would recommend to congress without delay appropriations for a new subtreasury, postoffice and other federal buildings in San Francisco.

HOW GOVERNMENT SAVED LIVES.

William H. Taft, secretary of the war department, told Congress how the government saved hundreds from starvation. In an official letter he said:

"All subsistence and quartermasters' supplies and all medical stores of every kind which were in the military depots in San Francisco were destroyed, except the local supplies for the troops stationed at the Presidio at San Francisco. Ac-

cordingly all relief supplies had to be ordered from a distance. There were sent special express trains from every available and convenient point where there were stores, 900,000 rations, which means the rations for 900,000 soldiers for one day. The value of these rations is estimated by the commissary general to be \$198,000. Two hundred thousand of these rations reached San Francisco Saturday morning in charge of commissary officers.

"The quartermaster's department expressed by special train wall tents, conical tents, hospital tents and storage tents for the shelter of 100,000 people; 100,000 blankets, 7,500 mattresses, 11,500 bed sacks and 8,000 cots.

"The quartermaster's supplies delivered in San Francisco amount in value to \$1,031,734. The medical bureau of this department sent five car loads of medical supplies from St. Louis by express in charge of competent medical officers and hospital stewards. The estimated value of these medical supplies is \$50,000.

"The cost of the relief given at once by the army was \$1,429,734. Besides this the government lost \$3,448,863 in supplies in the depot at San Francisco."

RAISED FUNDS IN EVERY STATE.

Every state in the Union quickly responded to California's call for assistance in her hour of disaster and suffering. State and city officials acted with a spontaneity never before known in soliciting contributions, business leaders everywhere were equally alert, and officials and plain citizens gave freely. Within four days after the disaster, in the list of generous contributors, New York city ranked next to the government itself, and bade fair far to exceed the government in contributions. The New York fund then amounted to approximately \$2,000,000, with contributions coming in fast.

Massachusetts, with Boston's aid, undertook to raise \$3,000,000. Philadelphia pledged \$500,000, Chicago \$1,000,000 or more. Pittsburg gave \$100,000; the commercial men of Cleveland, \$100,000; St. Louis, \$200,000; Sacramento, \$100,000, and Seattle, \$90,000. The finance committee of the council of Philadelphia appropriated \$100,000 as the city's official gift.

A score or more of cities contributed \$100,000 and more, while hundreds of municipalities sent all their means would allow.

THEATERS GIVE BIG BENEFITS.

Throughout the country theatrical performances were given, the proceeds going to the relief fund. Two performances at the New York Hippodrome yielded \$31,500. Mrs. Herman Oelrichs alone disposed of more than \$6,000 worth of tickets at a branch box office, and donated \$5,000 herself. John W. Gates and Harry S. Black were admitted for \$5,000 each. Miss Marie Dressler sold a lot of tickets on the sidewalk.

James K. Hackett and Mary Mannering gave a special performance of "The Walls of Jericho" on Sunday at the Tremont Theater, Boston, the mayor of Boston having granted Mr. Hackett a special license. A benefit performance of



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SAN FRANCISCO

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"Peter Pan" in New York realized \$3,407. Maude Adams, the star, contributed \$1,000 of the total.

The Milwaukee Brewers' Association subscribed \$5,000 and the Milwaukee bankers the same amount. Every city and village of Wisconsin helped to swell Milwaukee's fund of \$80,000.

Minneapolis contributions in three days reached \$50,000, and the total eventually exceeded \$100,000. Ten car loads of flour in one shipment constituted an additional gift from Minneapolis. Every city, town and village in Minnesota aided the San Francisco sufferers. The state relief committee appointed by Governor Johnson telegraphed every mayor in the state, appointing him and the cashiers of the local banks a committee to solicit subscriptions. It is thought that \$100,000 can be raised in this manner. Gustave Scholle, of St. Paul, was elected chairman; W. W. Heffelfinger, of Minneapolis, and Mayor Cullom, of Duluth, vice chairmen, and Kennedy Clark, of St. Paul, and E. W. Decker, of Minneapolis, treasurers of the committee.

RED CROSS DISTRIBUTES MILLIONS.

In order that there might be perfect accounting of the relief funds and perfect organization in the distribution, the secretary of war, William H. Taft, in his capacity of president of the American National Red Cross, issued the following proclamation:

"To the Public:

"As president of the American National Red Cross I have appointed Dr. Edward Devine special agent of the Red Cross work to be done in San Francisco. I am in receipt from Dr. Devine of a telegram in which he suggests that notice of all available relief funds and all shipments for relief, whether consigned to the Red Cross or not, be sent to him, addressed "Red Cross, San Francisco," that it is exceedingly important to centralize this information. I agree with Dr. Devine's suggestions and respectfully request those who are engaged in forwarding either relief funds or shipments for relief to notify Dr. Devine of the fact and the name of the consignee."

ILLINOIS TOWNS QUICKLY RESPOND.

Instantly the Red Cross forces of all the states were deluged with offers of assistance. The contributions from the Illinois towns came in quick response to a proclamation of Governor Deneen, who, under the provisions of the reorganized National Red Cross Society system, is the president of the Illinois branch. The manufacturers of Moline sent the largest sum from down the state—\$5,000. Mayor Andrew Olson, in notifying Treasurer Smith of this contribution, concluded his letter with: "More to follow." A telegram from E. M. Burr, president of the chamber of commerce at Champaign, which announced that \$700 had been mailed for the California relief fund, closed with the same words.

MANY TOWNS GIVE SMALLER SUMS.

Other contributions were made by cities and towns as follows:

| | | | |
|-----------------------------|----------|--------------------------------|--------|
| London (American Fund)..... | \$10,000 | Houghton, Mich. | 1,200 |
| Rock Island, Ill. | 5,000 | Winona, Minn. | 2,500 |
| Galesburg, Ill. | 3,300 | New Orleans, La. | 7,500 |
| Kankakee, Ill. | 1,200 | Houston, Tex. | 7,300 |
| Jacksonville, Ill. | 1,000 | Galveston, Tex. | 3,500 |
| Champaign, Ill. | 700 | Canadian Shriners | 25,000 |
| Dixon, Ill. | 600 | Col. Cody cabled..... | 1,000 |
| South Bend, Ind. | 5,000 | Canadian Pacific Railroad..... | 10,000 |
| Elkhart, Ind. | 2,250 | Knights of Pythias..... | 5,000 |
| Racine, Wis. | 2,000 | Atlas Assurance Co., London.. | 5,000 |
| Cedar Rapids, Ia. | 5,000 | Plano, Ill. | 350 |
| Iowa City, Ia. | 1,200 | Cissna Park, Ill. | 150 |
| Keokuk, Ia. | 1,000 | Manteno, Ill. | 100 |

Food and other supplies as sent from various places were:

Tacoma, Wash.—Twenty-five thousand dollars' worth of supplies on order of the governor of Massachusetts and the mayor of Boston. Seventy thousand pounds of fresh beef.

Philadelphia, Pa.—Relief train filled with medicine, liniments, bandages, water, food, clothing, tents, bedding, etc., contributed by local merchants.

Oklahoma City, Okla.—Two carloads of flour.

Vinton, Ia.—The Iowa Canning Company sent 24,000 cans of canned corn.

The National Association of Retail Druggists issued a call on its members to raise \$100,000 for the 200 druggists who lost their all in San Francisco.

In Pontiac, Ill., Mayor Lyon issued a proclamation calling on all citizens to contribute toward the relief of the California sufferers. A finance committee was appointed and collected a large sum. The city council donated \$100.

In Kankakee, Ill., subscriptions to the amount of \$1,300 were collected in one day by the relief committee.

The city of Freeport, Ill., through the mayor and council, the churches and every trades union in the city, the trades and labor council acted for them, held a meeting at which were represented the big factories, banks, stores and individuals, and started a movement that resulted in several thousand dollars being sent to the California sufferers.

In Toledo, Ohio, Mayor Brand Whitlock issued a proclamation setting aside a California day. The Salvation Army got out with its kettles and received contributions. Money collected on the Produce Exchange, donations from other sources and the kettle receipts reached \$5,000 in three days. A car of provisions was also attached to the relief train from New York when it passed through that city.

WHOLE COUNTRY PROVES GENEROUS.

In the raising of funds the lines of the geographer were obliterated; there was no east, no west, no north and no south. Even the thousands of Mexico were touched by the horror of quake and flames and contributed 30,000 pesos that the despair in the far west might give way to hope.

When Boston girded to respond to the call there was held at Faneuil hall a meeting that will add more glory to the history of that famous old building. It was crowded when Bishop Mallalien arose to address the people. And before he finished he moved that the state of Massachusetts raise \$3,000,000 for the quake and fire victims, and so enthusiastic were those gathered about him that it was done within a moment.

Churches, societies, individuals everywhere swelled the golden flood. Every city in the north and almost every one in the south sent food and supplies by rail and water, and the railroads gave relief trains right of way over everything.

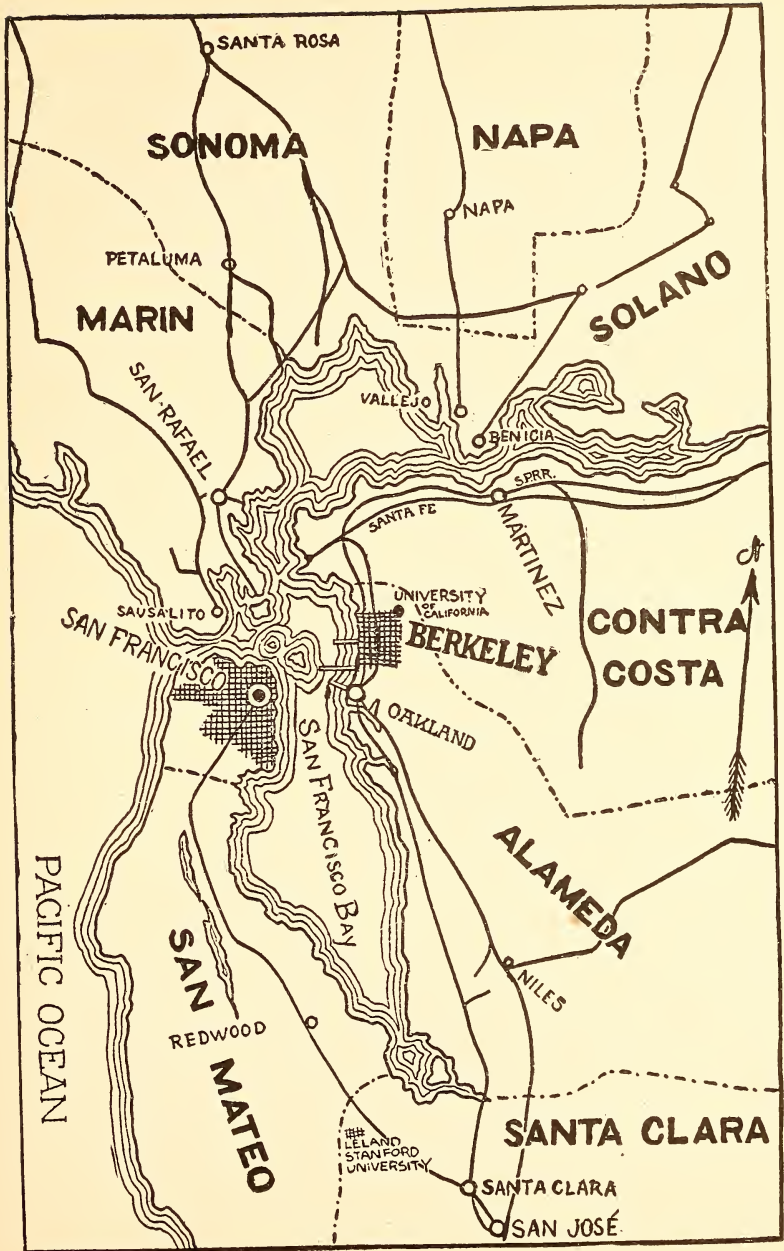
Archbishop Farley of New York appealed to Catholics, Commander Eva Booth set the Salvation Army's stupendous machinery in motion, the Grand Army of the Republic collected a big fund, the Masons, Odd Fellows and Elks opened their purses as never before and diplomats of foreign nations contributed freely. Sir Chentung Liang-Cheng, the Chinese minister, called at the state department in Washington to express the sympathy of the Chinese government with the United States in its great sorrow. He made an offer of funds contributed by himself and a number of his friends for the relief. As this government was not accepting foreign gifts the Chinese minister decided to send the money direct to San Francisco for the relief of the Chinese who were injured in the earthquake and fire.

Thousands of refugees flocked into Alameda, Cal., and were cared for in all parts of town, residents generously offering shelter and food to the refugees. The Alameda lodge of Elks had the co-operation to all the other fraternal organizations of the city in an immense general relief committee.

Three hundred and fifty of the distressed were fed and sheltered in tents in Alameda. An equal number was sent to private families by the relief committee. The Masons threw open Masonic Temple, where many of the refugees were fed.

EUROPE LENDS ITS HELP.

Meantime Europe's sympathy was expressing itself in a substantial way. Ten thousand dollars was cabled to the Red Cross at Washington as the first installment of the American fund raised in London in aid of the suffering people of San Francisco. In Paris, United States Ambassador McCormick presided at a meeting of the American Chamber of Commerce, called to take action regarding the disaster. A number of prominent Americans, including Consul General Mason and Professor Albert H. Smyth of Philadelphia, who was designated by President Roosevelt to speak for the United States at the unveiling of the Franklin statue, were present, in addition to the members of



the chamber. A relief committee was appointed and a subscription started. The ambassador, in behalf of the meeting, forwarded a dispatch of sympathy to President Roosevelt.

In Berlin, Percival H. Dodge, American charge, called a meeting of the Americans of that city at the embassy to take action in regard to assisting in the relief of the suffering San Franciscans.

NEW ZEALAND OFFERS \$25,000.

Farther even than Europe the cry for the earthquake and fire victims went. From far off Christchurch, New Zealand, Premier Seddon cabled to President Roosevelt offering \$25,000 to show New Zealand's practical sympathy.

The sympathy of Mexico for the sufferers at San Francisco took tangible form. The government contributed 30,000 pesos for the victims. This amount was immediately transmitted to San Francisco. Many benefit performances were given to raise more money.

Representative men of export and financial circles in Germany conferred about opening a public subscription to aid sufferers by the California earthquake, but as there was information from New York that it was not expected that relief committees would be organized in Europe, as American efforts will be ample for the present need, the movement was dropped.

Messages of sympathy came from all the kings and queens of the old world. The crown Prince Gustavus, as regent, cabled to President Roosevelt expressing the deep sympathy of Sweden with the United States in the California calamity. Emperor William of Germany did likewise. All these messages elicited official responses and the tragedy of the California coast thus helped to cement in closer bonds the nations of the earth.

MAIL COMMUNICATION QUICKLY RESTORED.

All this time the American authorities were using every possible means to help California. Realizing the anxiety that would be felt in cities outside San Francisco for the fate of those within the devastated zone the United States postal authorities bent every effort to resume mail communication with the outside world. The main postoffice, by a seeming miracle, escaped great damage, and on the Saturday following the awful earthquake resumption of service was established. All but fifty bags of mail that went through the fire were recovered.

Branch offices were established throughout the city and at the various refugee camps, and money orders cashed without delay. The supply of postage stamps was quickly exhausted and letters were accepted without postage and sent to their destination without delay.

NEWSPAPERS LOSE NO TIME.

All the daily newspaper offices were burned out, but the dauntless spirit of the editors, publishers and others connected with journalism could not be broken.

Amid the flood of flame and quivering earth the proprietors at once went to work to tell the people, as far as possible, the extent of the disaster and to buoy them up with the hope of a greater and grander San Francisco.

For a time it seemed as though the Examiner plant might be saved and papers printed from that office. This idea was soon dispelled by the relentless march of the flames which made it patent that the destruction of that magnificent structure was inevitable.

Then arrangements were made to publish at Oakland, across the bay. The comparatively meager facilities of the Oakland Tribune were unreservedly placed at the disposal of the San Francisco editors and on Thursday morning, the day after the fire, a small combination sheet appeared, bearing the unique heading, "Call-Chronicle-Examiner."

It gave a brief account of the great disaster and took an optimistic view of the future of the stricken city. The next day the papers appeared under their own headings and with a few illustrations, showing scenes in the streets of San Francisco.

In the meantime orders had been rushed to makers of printing presses and other machinery and within an incredibly short period of time normal publication was resumed as though the fire had never occurred.



THE HOTEL VENDOME AND ANNEX.

A Noted All-the-Year-Round Resort at San Jose, Which Collapsed During the Earthquake and Killed Many Guests.

CHAPTER XVI.

SCIENTISTS STAND AGHAST.

Professor John Milne Has Startling Theory—May Be Caused by Earth Swerving Back Upon Axis—Vibrations Proved—Wobbling at Pole—Sun Spots Blamed by Some—Vesuvius May Be Responsible—140,000 Earthquakes Recorded—Science Gives No Warning—Major Dutton Describes Phenomena—Appalling Roar Accompanies Shocks—Source Twenty Miles Below—How the Seismograph Does Its Work—Awful Power of Vibrations.

And behold the veil of the temple was rent in twain from the top to the bottom; and the earth did quake and the rocks rent.—Matthew 27: 51.

A new and startling theory as to the cause of earthquake has been deduced by Professor John Milne, the eminent English scientist and authority on all that pertains to earthquake and volcanic disturbances.

Professor Milne holds that earthquakes may not be caused by the adjustment of the surface of the earth to meet a gradual reduction of size, but may be caused by a jar as the earth swings back to get into true position upon its axis. This scientist said it has been demonstrated that the earth does not swing true and that, in getting back, a tremendous strain upon the earth's crust results.

The seismographs of Europe recorded the earthquake at San Francisco and showed that the movements were violent. The instruments used by Professor Milne, who is the inventor of instruments to record vibrations of the earth, registered the movement at about 1:30 p. m., Greenwich time.

The marks on one of his smoke cylinders at Shide Hill house, Isle of Wight, were so long and pronounced that the severity of the disturbance and its approximate location immediately were apparent.

When questioned as to the probable cause of the earth movement, Mr. Milne said this inquiry ought to be addressed to astronomers, because it was believed that earthquakes are caused largely by the earth failing to swing perfectly true on its axis.

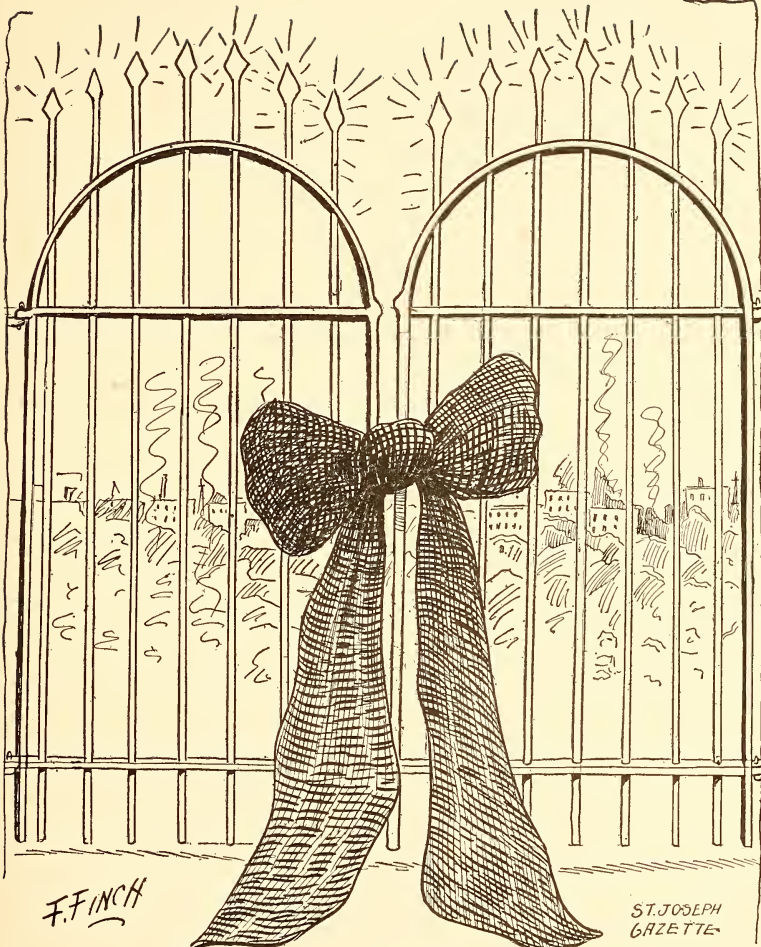
Mr. Milne added that it was impossible to say whether there was any connection between the eruption of Mount Vesuvius and the earthquake at San Francisco. It is conceivable that there was some connection, but opinion either way is merely speculative.

VARIATIONS IN EARTH PROVED.

Professor J. A. Bradhere, of Allegheny, Pa., one of the best known astronomers in America, said, when asked regarding Professor Milne's theory:

"That is a novel theory. I have never heard it advanced before and it is contrary to the accepted beliefs. It is true that the earth does not swing perfectly true upon its axis.

"Professor Doolittle, of Philadelphia, has demonstrated this more accurately



F. FINCH

ST. JOSEPH
GAZETTE

than possibly any other man. He has proved a variation of fifty feet at the pole as a result of innumerable calculations by hundreds of scientists.

"For a long time this variation caused what were supposed to be errors in scientific calculations, but as all the errors were on the same side and in like proportion the variation was discovered.

"I do not believe, however, that this wobbling at the pole, as it may be called, is ever corrected by a sudden shock of the earth getting back into position, as is suggested by Professor Milne.

"The earth inclines slightly upon its axis, but it is the scientific belief that no change in the earth's motion can be produced excepting by outside influence. If there should be such an influence as to make the earth change its axis there might be an earthquake. The theory put forward is a novel one, however, and deserves careful study.

"It will take much, however, to change the general belief, but there are so many things we do not know about the earth. For instance, I do not know whether the interior of the earth is a molten mass or not.

"The pressure at the center is enough to make anything molten, representing the weight of a column of mercury 1,700 miles high, but the fact has not been proven that the interior of the earth is not solid."

EARTH DECLARED GROWING SMALLER.

Sir Hiram Maxim, the noted British inventor and scientist, declared the world was growing smaller.

"The earth," said he in an interview published in a London paper, "is constantly losing its heat, and growing colder and smaller. Ever since the solid crust of the earth has been formed there have been certain lines of least strength, and as the earth shrinks the solid crust yields in these weakest spots. It will now be found that California is not so large as it was before the earthquake, but the difference will not be great."

Sunspots, that have been so numerous for the past year as to cause the closest study on the part of scientists, were blamed for the recent earthquakes throughout the world, as well as the eruption of Mount Vesuvius, by the Rev. Fred Hillig, astronomer and scientist of St. John's College, at Toledo, Ohio.

Father Hillig predicted that a great ocean wave would come in from the Pacific ocean and do incalculable damage to the towns along the coast.

"An earthquake," said Father Hillig, "begins at some point deep in the bowels of the earth and is caused by the mysterious influence, electrical or otherwise, of the sunspots.

"The vibrations radiate from that center. These earth waves may reach the surface of the earth at different places at different times, owing to difference of distance from the center of disturbance.

"This earthquake may have originated at the same point in the interior of the earth in which the Formosa earthquake and the eruption of Vesuvius took their beginning."

PROFESSOR NEWCOMB GIVES HIS VIEWS.

Professor Simon Newcomb, of the United States Geological Survey, declined to commit himself, saying:

"Earthquakes are due to a shifting of the earth's strata, but what causes that shifting is not positively known.

"I can conceive that a shifting of the earth's axis, even to the slightest degree, would impose a great strain upon some parts of the earth's crust and this might explain earthquakes, although the general theory is that the shifting is due to the gradual lessening of the earth's surface."

Professor Newcomb is known to scientists through his work in ascertaining the weight of the earth.

Some of his friends declare that he has a new plan under way to obtain a more accurate result than has heretofore been achieved, but he refused to talk about his plan and says the calculations are so intricate that he cannot discuss them.

He says that the work of weighing the earth is done by means of a ball of lead in a glass case, and his friends hint that his new plan comprises the use of a tremendous pendulum about a quarter of a mile long.

EASTERN PROFESSOR CALLS IT GUESS.

Professor James F. Kemp, of Columbia University, regarded Professor Milne's suggestion as an elaboration on the theory that earthquakes are caused by a readjustment of the earth's crust, due to a slowing up of rotation of the earth and a flattening of the poles.

"As a matter of fact," said Professor Kemp, "scientists are all guessing upon the subject. All they really know is that the earth's crust readjusts itself at times, but no one has as yet proved the exact cause of these changes."

Dr. G. F. Becker, of the United States survey, strongly opposed those theorists who ascribe the eruption of Mount Vesuvius as the cause for the San Francisco disaster. Dr. Becker said the entire coast of California is unstable and that immense stretches of shoal water are suddenly transformed into fathomless depths, and when these changes take place deep down in the earth's strata it is necessary for the surface to readjust itself.

Professor Brown, of the geological department of the University of Pennsylvania, was not inclined to agree with those scientists who believe the recent activity of Mount Tacoma was to blame for the disaster. He believed that the activity of that mountain would have caused trouble farther north, if anywhere, and that a city as far away as San Francisco would not have been affected.

CALIFORNIA SCIENTIST DESCRIBES QUAKE.

In describing the earthquake from a scientific point of view, A. V. Teuschner, director of the students' observatory of the University of California at Berkeley, said:

"The principal part of the earthquake came in two sections, the first series of vibrations lasting for about forty seconds.

"The vibrations diminished gradually during the following ten seconds, and then occurred with renewed vigor for about twenty-five seconds more.

"The motion was from south-southeast to north-northwest. The remarkable feature of this earthquake, aside from its intensity, was its rotary motion.

"As seen from the print, the sum total of all displacements represents a very regular ellipse and some of the lines representing the earth's motion can be traced along the whole circumference.

"The three severest earthquakes on record in this vicinity are those of Oct. 21, 1868; March 30, 1898, and that of April 18, 1906. The result of observation indicates that our heaviest shocks are in the direction of south-southeast to north-northwest.

"In that respect the records of the three heaviest earthquakes agree entirely. But they have several other features in common.

"One of these is that while the displacements are very large the vibration period is comparatively slow, amounting to about one second in the last two big earthquakes."

THINKS VESUVIUS MAY BE CAUSE.

E. W. Maunder, superintendent of the Greenwich observatory, believed that the earthquake in all probability was a direct consequence of the activity of Mount Vesuvius, whose eruption doubtless started a severe wave movement through the crust of the earth. He held, however, that there is no sufficient reason to connect these catastrophes with displays of solar activity, and commented on the comparative rarity of earthquakes in the United States.

Dr. Davison, of Birmingham, another seismic expert, obtained valuable records, but could suggest no connection between the Vesuvius and San Francisco disasters.

Records in all countries dealing with earthquakes have catalogued a total of 140,000 of the phenomena. Within the last ten years the science of seismography has taken a wonderful advance until there is scarcely a civilized government under the sun which is not setting its instruments for the recording of the time and movement and force of the earthquake—after the quake shall have come and gone.

But so far as any possible anticipating of the phenomenon or any possible approximating its force in any manner, the scientist is completely in the dark. It is one of the challenging facts that of all the great convulsions of nature which have wrought such monstrous ruin to the world virtually none has been foretold by any one having the least character in the scientific world.

Even where some of the disturbances of the earth's crust have been foretold the absence of the prophet's measurements of the force and ruin of them has discounted and discredited his efforts.

SCIENCE GIVES NO WARNING.

In a period of eighty years of reasonably accurate observation, San Fran-



Artistic Corner in San Francisco Home Destroyed by the Fire.

cisco alone has had 417 earthquakes, 200 of which have been described with sufficient clearness to become a part of the records of the Lick observatory in California.

These 417 shocks, of which 200 have been classed in virulence, occurred in a period of 960 months, giving a period of only a little more than two months between each convulsion. In the state as a whole the eighty-year period has given evidence of 956 shocks, observed at 214 stations throughout the state.

Yet, with a string of experiment and observatory stations all around the world, and with the electric wire and submarine cables winged by the lightning, San Francisco went down to ruin not only with no warning whatever of the impending calamity, but with a thousand scientists wrangling over the question of what an earthquake is and what is its source of evolution.

Perhaps Dutton, in the United States, is to be quoted as authoritatively as is any one else on this hopelessness of determining the approach of the earthquake and of fixing upon its source of ruin.

He says with distinction that there is no intelligent source of warning to be counted upon; that at least three possible causes of these convulsions of the earth may be regarded with credence, but that so far as the "signs" of whatever nature have been canvassed, they have been rendered utterly worthless, for the reason that they have failed far more often than they have materialized.

WHEN GREAT EARTHQUAKE COMES.

"Anything which calls into sudden activity the elasticity of the earth mass causes an earthquake," is his ultimatum. "And by the word 'sudden' are meant seconds, not minutes or hours."

In his work on the earthquake Major Dutton gives to the lay mind a picture of the catastrophe which makes the technical analysis of the phenomenon a slow subject, having little more light than has the origin of electricity to the mind of the electrical engineer who is harnessing that force to almost every end of man's necessities.

"When the great earthquake comes, it comes suddenly and is as quickly gone. Its duration is generally a matter of seconds, though instances have been noted in which it lasted from three to four minutes. Perhaps forty-five seconds would be a fair average.

"The first sensation is a confused murmuring sound of a strange and even weird character. Almost simultaneously loose objects begin to tremble and chatter.

"Sometimes almost in an instant, sometimes more gradually, the sound becomes a roar, the chattering becomes a crashing. The rapid quivering grows into a rude, violent shaking of increasing amplitude.

"Everything beneath seems beaten with rapid blows of measureless power. Loose objects begin to fly about; those lightly hung break from their fastenings. The shaking increases in violence.

"The floors begin to heave and rock about on the waves. The plastering

falls, the walls crack, the chimneys go crashing down, everything moves, heaves, tosses. Huge waves seem to rush under the foundations with the swiftness of a gale.

IMPOSSIBLE TO WITHSTAND.

"The swing now becomes longer and more powerful. The walls crack and open. A lurch throws out the front wall into the street, or tears off or shakes down in rubble the whole corner of the building.

"Then comes a longer, swaying motion, not like a ship at sea, but more rapid; not alone from side to side, but forward and backward as well, and both motions combine into a wriggle which it seems impossible for anything to withstand.

"It is the compound, figure 8 motion which is so destructive, rending asunder the strongest structures as if they were adobe. It is the culmination of the earthquake. It settles into a regular swing of decreasing amplitude; suddenly these abate, and the motions cease.

"Or suppose we are out in the country and the earthquake suddenly comes upon us.

"The first sensation is the sound. It is unlike anything we ever have heard, unless we already have had a similar experience. It is a strange murmur.

"Some liken it to the wind sighing in the pine trees, or to falling rain; others to the distant roar of the surf; others to the faroff rumble of the railway train; others to distant thunder.

"It grows louder. The earth begins to quiver, then to shake rudely. Soon the ground begins to heave.

"Then the ground is actually seen to be traversed by the visible waves, like waves at sea, but of less height and moving much more swiftly. The sound becomes a roar. It is difficult to stand, and at length it becomes impossible to do so.

LIKE VOICE OF THE ETERNAL ONE.

"The victim flings himself to the ground to avoid being dashed to it, or he clings to a convenient sapling or fence post to avoid being overthrown.

"The trees are seen to sway, sometimes through large arcs, and they are said, doubtless with exaggeration, to touch the ground with their branches, first on one side and then on the other.

"As the waves rush past the ground on the crests opens in cracks which close together again in the troughs. As the troughs close the compressed air blows out sand and gravel and sometimes sand and water are spurted high in air.

"The roar becomes appalling. Through its din are heard loud, deep, solemn booms that seem like the voice of the Eternal One, speaking out of the depths of the universe. Suddenly this storm subsides, the earth speedily comes to rest, and all is over."

This is the unheralded great earthquake which every little while breaks through the cooled crust of the earth's surface—sometimes in the mountain wastes where the archaeologist of another generation discovers its havoc—sometimes in

the heart of densely populated districts of civilization or of barbarism, there to spread death and desolation such as scarcely was pictured in the steel-ribbed, sulphurous theology of fifty years ago.

But come when it will and how it will, it is as unescapable as fate. If the observatory station shall be left standing the scientist will be able to read some measure of the convulsion's duration and direction and its up and down and creeping movements, traced upon sheets of smoked glass.

SOURCE TWENTY MILES BELOW.

So far as the scientist at the seismograph station has gone with his observation, he still has much left for the exercise of his imagination and his application of the known laws of physics.

Wherever the great earthquake has shown its destructiveness, the scientist searches out its centrum, which is the approximate internal seat of the eruption, and he seeks to map on the surface the epicentrum, the spot at which the greatest tremor is manifest and from which in all directions the forces of the phenomenon diminish into stillness.

Here, however, the seismologist finds himself embarrassed and occasionally lost in his philosophy. One earthquake of a certain amplitude may echo half round the world before the seismographs in a hundred stations are done with its diminishing records.

Another quake may outdo it in a populous epicentrum and the seismograph that is hardly a score of miles away may stand without a scratch to mar the blur of smoke on a single blank record that may have been in waiting for months.

This much the seismologists are agreed upon—that the source of the eruption, wherever it may be, is scarcely to exceed twenty miles below the swaying crusts of the land or the churned surface of the ocean.

RECORD OF SEISMOGRAPH.

From the confessional of the seismographer, the seismograph is not more than a makeshift sort of instrument, which works along the lines of the common clock to the best of its makeshift mechanism.

The clock pendulum has been utilized in the Milne machine, which is representative. Whether on plates of smoked glass or on a ribbon of paper feeding through the seismograph, the man in charge of the station may read—after the convulsion—each of the three motions which disturb the earth's crust at that point, while the time will be given with considerably more accuracy than formerly was furnished by the stopped clock itself.

The ordinary clock stops on the occasion of a heavy shock of earthquake. The time of the clock after the shock once stood for the time of the catastrophe's breaking. But it was discovered that just as long as the swaying motions of the earth continued the pendulum clock continued to run; or that when the sudden sharp upheavals might stop it, the rolling side movements might start it again and leave it running.



A Magnificent Home Destroyed by the Fire.

Outside of the tremendous forces of the earthquake, however, the seismograph now gives its best results in keeping a line on the after influences of the phenomenon.

Thus it has been settled that some of the greatest of these upheavals of nature have sent out wavelike sensations through earth matter of mixed formations at the average rate of three miles a second, sometimes for thousands of miles.

Yet some of these vibrations away from the epicentrum of the quake have been sufficient to make the ninety-pound steel rails of the modern standard railroad appear tortuous beyond the possibility of running a two wheel cart over them.

FIGURES APPEAR UNMEANING.

Approximations of the force of some of these great convulsions of the earth make figures appear unmeaning.

In the Japanese horror of 1887 the records of observers showed that 30,000 square miles of land was shaken.

The average depth of the convulsion was figured at one mile, and averaging the weight of the shaken earth at 150 pounds to the cubic foot, it was estimated that the power to shake only one cubic mile of earth was 2,500,000,000 foot pounds. To shake 30,000 square miles to the depth of 5,280 feet—!

The same authority, taking the records of the Charleston (S. C.) disaster, points to the fact that an area of 100 miles square was affected at the rate of three miles a second in every direction from the epicentrum.

To shake one of these square miles to a depth of a mile and at the rate of one-third of a second required 130,000,000 horse power, while for the 10,000 square miles affected to that depth represented one trillion three hundred billion horse power!

All of this virtually has left beyond consideration the causes of the tremendous upheavals in almost every part of the world. There are at least three causes that have been exploited with some degree of scientific credence.

One is the accepted fact that a surface down throw compressing the molten liquid mass under the crust of the earth sets the mass into elastic motion that is farthest reaching of the influences, as in the Japanese earthquake in 1891.

SOME ATTEMPTED EXPLANATIONS.

Another of the accepted causes by many seismographers is that the volcanic influences, setting this inner molten mass in motion, produce the quake.

Some of the proofs of this have been advanced by Humboldt, who showed that the active volcano was the safety valve for its immediate neighborhood, as evidenced in so many portions of the Andes ranges.

There the testimony of the natives has shown that an earthquake may be lightest at the cone and heaviest many miles away.

Another of the seriously questioned explanations is that through some

displacement of the molten masses of the inner earth, the moon—which exerts its tremendous influence on the ocean tides—combines with the sun in a pulling strain that suddenly puts the elastic contents of the earth's crust into violent movement. Milne has accepted this explanation in part.

Dutton has shown that most earthquakes in Japan are independent of volcanoes and originate in the bed of the Pacific.

In the same way the Philippines are subjected to earthquakes having their rise in the Pacific. Further, that in periods of ten to fifteen years the Philippine group of islands may expect recurrences of the phenomena.

The California quakes, it is agreed, almost invariably have had their origin in the probable down throw of the earth's crust, due to faults in the crust itself.

SUPERSTITION IS GIVEN FULL SWING.

The awful ruin wrought on the Pacific coast, following the terrific eruption of Mount Vesuvius, earthquakes in Japan and Formosa, together with wars and pestilence of recent years caused great alarm among those inclined to be superstitious. The prediction of Mme. Thebes, the French seeress, who at the beginning of the year predicted a great convulsion of nature in the United States, was recalled with awe.

Professor Totten, formerly of Yale, who prophesied on January 1 that the eleventh hour summons had sounded and that the end of the world was approaching, said in reference to the San Francisco earthquake:

"I have voiced the disaster from the solid standpoint of prophecy, interpreted and proved since 1880.

"What I look for next is a comet, a portent of the greater disasters. The whole universe is wound up for disaster. There isn't a cycle that doesn't move toward Zero. Look at the conditions of cities and banks and insurance companies; devilry is piling up for the great crash."

FIRE UNDERWRITERS FORESAW DISASTER.

The fire which followed the earthquake and its enormous damage was not unexpected by those familiar with the subject, that is to say, the fire underwriters. The day after the disaster it became known that the committee of experts on fire hazards in the employ of the National Board of Fire Underwriters made a remarkable prediction a year ago regarding San Francisco. The committee which is to make reports on all of the important cities of the country passed much time in San Francisco, and its report on that city, which was finished about a year ago, summarized the situation.

After pointing out many topographical disadvantages, the report said:

"In fact, San Francisco has violated all underwriting traditions and precedent by not burning up. That it has not done so is largely due to the vigilance of the fire department, which cannot be relied upon indefinitely to stave off the inevitable."

VIEWS OF CHICAGO GEOLOGISTS.

Prominent Chicago geologists in discussing the probable cause of the earthquake in the main held to the belief that the catastrophe was due to the growth of the Sierra Madre mountains.

"The slipping of the rocks, perhaps only a fraction of an inch, not more than three or four, is probably the cause of the San Francisco catastrophe," said Henry Windsor Nichols, assistant curator of the Field Columbian museum. "The Sierra Madre mountains, geologically speaking, are young and are still slowly growing. The faulting of the rocks is going on too rapidly, causing a fracture. All along the mountain range there is a line of weakness, and from the meager data at our disposal I think the earthquake due to such a slipping. When we get the results from the various seismographs we can form definite conclusions.

LIKENED TO DISASTER AT CHARLESTON.

"I think perhaps the conditions in California are similar to those of the great Charleston earthquake, and do not believe this shock holds any relation to the eruptions of Vesuvius. There is no reason why the shock should come to San Francisco rather than any other place along the coast."

Dr. J. Paul Goode, assistant professor of geography at the University of Chicago, said: "The earthquake was probably due to a slipping of the ocean or its crust. The Sierra Madre mountains are young and slowly growing, and this is a symptom of their rising."

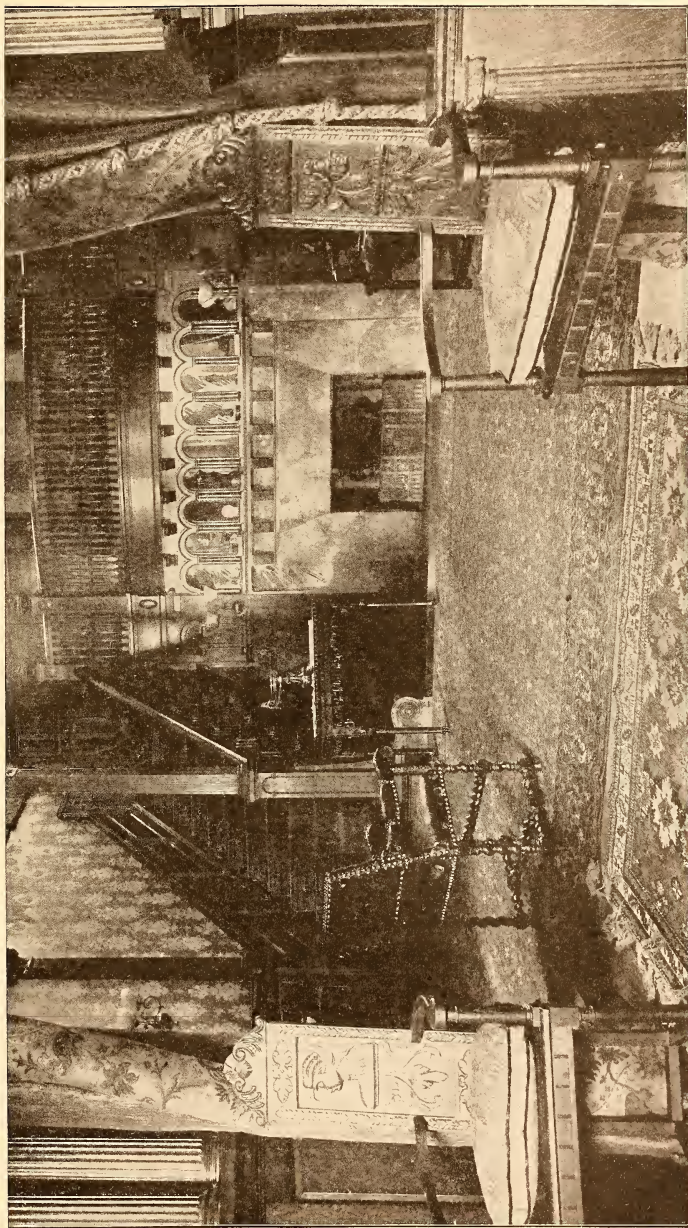
NOT CONNECTED WITH VESUVIUS.

Professor U. S. Grant, head of the geological department at Northwestern university, held to the opinion that the earthquake which shook the western coast was in no way connected with the eruptions which have occurred recently at Mount Vesuvius. He ascribed the seismic disturbances to the reformation of the earth which is constantly going on under the earth's crust in that locality, and cited instances of slight earthquakes which have occurred in that vicinity during the last three months at the rate of two to three a month.

"California and the coast states are the most noted places in the world for these earthquakes," said the professor. "According to the data of the Lick observatory, two or three shocks are felt each month. This one seemed to be far greater in extent and severity than any previous one."

WIDE VOLCANIC BELT.

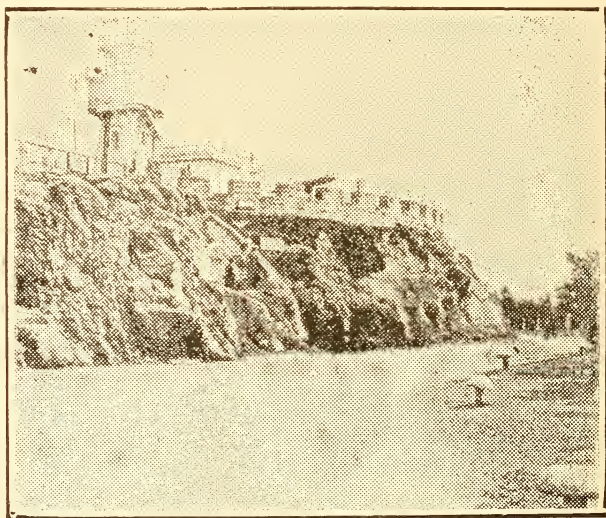
Professor Joseph Kathan, who was present with the noted Italian, Professor Palmieri, at the eruption of Vesuvius in 1881-2, when Palmieri invented the seismograph, an instrument recording the time and the force of the shock, differs with Professor Grant, saying:



Hallway in Abode of Wealth That Is No More.

"California lies in what is known as the volcanic belt, which runs entirely around the world, including Vesuvius and Aetna in Italy, Formosa in Japan, and the western coast of the United States in its course. The entire belt is affected when such violent internal disturbances take place, such as those at Vesuvius.

"Martinique, which is well known as a center of volcanic action, is the beginning of this line, which includes the Canary islands, portions of Spain, and a large part of Italy in its path. The Aetna and Mount Vesuvius in Italy are both in the direct path. Southern Russia is touched, then the Island of Japan, particularly Formosa, comes, the line going from Formosa, where eruptions and earthquakes were felt but a few days ago, to the western coast of the United States. It was in the regular course of the volcanic belt that California was reached."



THE DEFENSES OF SAN FRANCISCO.

This is the "Parapet," Overlooking the Pacific Ocean Near the Cliff House. Here are Mounted Part of the Big Artillery Guns that Defend the City.

CHAPTER XVII.

LOOKED FOR END OF WORLD.

Many Sects and Superstitious People Generally Foresaw Doom of Globe in California Crash—“Flying Rollers” Greeted Tidings With Brass Band—Alarmists Became Busy—Prepare for Death—Lake Superior Region Agitated and Adds to the General Fear.

And great earthquakes shall be in divers places, and famines, and pestilences, and fearful sights and great signs shall there be from heaven.—Luke 21: 11.

As is the case on the occasion of every great disaster, there were thousands of persons—men and women who are religious enthusiasts—who claimed to see in the destruction of San Francisco the beginning of the end of the world.

Since time began predictions that the end of the world was at hand have followed thick and fast on the heels of each and every disaster, and in the present case the claim was made in almost every city in the United States that the entire country would be plunged into chaos during the week.

FLYING ROLLERS CLAIM HONOR.

The Flying Rollers of the House of David, a sect of 500 people who reside in Benton Harbor, Mich., greeted the news of the San Francisco disaster with a band of music.

The “Rollers” have been predicting such a visitation upon the people of San Francisco and they claimed that this great disaster would be followed by many more of its kind.

They point with pride to their missionary, Mary McDermitt, who, they asserted, stood up among the people of San Francisco a few days before the awful earthquake and called down judgment upon them, and told them that they would be visited by fire and earthquake shortly, and that the disaster should be one of the greatest in history.

The “Rollers” claim they have biblical proofs that the world is to come to an end in 1916, the intervening years to be filled with many disasters which will overshadow the present one.

They claim that the wrath of God will descend and that it will be visited by every manner of horror. They believe that 144,000 people who accept their faith will be saved, and that all the rest will perish.

SCRIPTURE QUOTED AS PROOF.

“Prince” Benjamin, the leader of the sect, said that the disaster at San Francisco was only the beginning.

He claimed that it was called down by Mary McDermitt, and claimed that their prophets are given scriptural permission to call down the wrath against the doomed city, and quoted Luke x, 10 and 11:

"But into whatever city ye enter and they receive you not, go your way out into the streets of the same and say even the very dust of your city which cleaveth on us we do wipe off against you; notwithstanding, be ye sure of this, that the kingdom of God is come nigh unto you."

Missionaries of the various sects whose members believe that the end is near set out at once, as soon as the news of the great disaster became known, and made a house-to-house canvass in nearly every city from New York to Portland, and from New Orleans to the Canadian line, calling on the people to prepare for the destruction of the world.

ALARMIST INVADES RELIEF MEETING.

"Prepare for death," shouted one missionary, as he entered a hall in Boston, where a relief meeting was in progress.

"Judgment day is at hand. God is showing his wrath, and the world shall be wiped away. This is the beginning. Prepare for the end. Put on your robes, give away your property and await the trumpet call, which will sound soon!"

For a week or more these alarmists traveled up and down the United States, appealing particularly to women.

For a day or two the alarm was great, especially in some of the rural sections, but it gradually faded away and died the death that all similar alarms have died.

The Adventists, who are always ready for the end, held large meetings in all sections of the country, at which their best and most forceful speakers dwelt at length on this last sign of the coming destruction of the world.

As a rule, however, the people of the country, familiar with "scare talk" after every disaster, paid but little attention to the alarmists, and inside of a week the country resumed its ordinary quiet, except for the relief measures intended to relieve the distress of the 'Frisco sufferers.

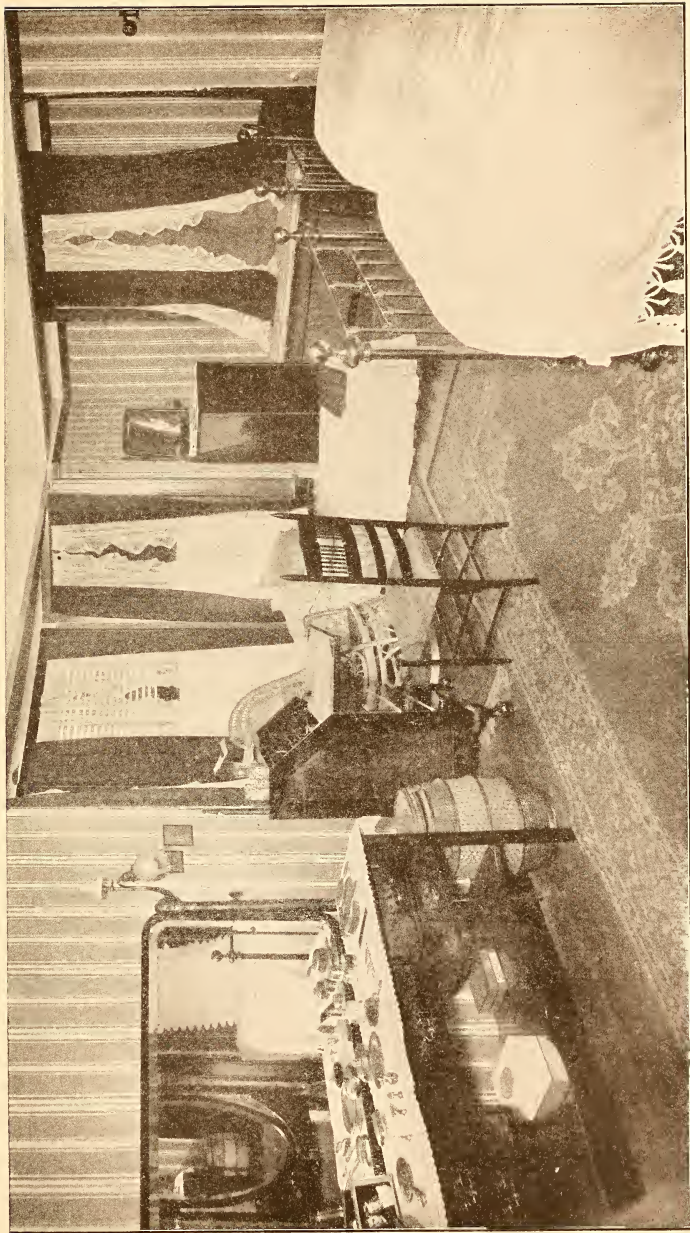
In several sections of Europe, however, the idea that the San Francisco disaster presaged the end of the world gained widespread belief, and in some of the smaller Russian towns the people became mad with terror.

In one village the entire population, led by an aged woman dressed in white robes, refused to eat, and with prayer awaited the coming of the Angel Gabriel. Farm work was neglected, domestic animals allowed to starve, and none of the ordinary business of daily life transacted.

This condition of affairs lasted for so long a time that the government was finally forced to send a company of soldiers into the village to restore order.

DISTURBANCES IN OTHER PLACES.

Violent volcanic disturbances in the United States followed the eruption of Mount Vesuvius and preceded the devastating earthquake of San Francisco.



Where Luxury Once Reigned and Ruin Rules.

April 8 smoke began to issue from the crater of Mount Rainier, called also Mount Tacoma, in the State of Washington. Flames poured out of the mountain the following day; then came great volumes of incandescent cinders and a dense rain of ashes. The mountain shook with internal explosions, whose deafening roar was heard miles away.

There were few residents near the mountain, but those who did dwell in the camps of coal prospectors and ranchmen were wildly agitated with the fear of being buried alive by the fearful rain of ashes. They hurried away from the mountain as fast as possible and did not return till the eruption ceased.

One of the prospectors, Jack Campbell, wrote a friend as follows about the eruption:

"Rainier began to smoke Monday evening. On Tuesday it was worse. Wednesday ashes and red-hot mud fell into camp. Rumbblings were heard, and I had to move. Thursday sulphurous smoke hung over the crater. The indications are that Rainier is an active volcano. The rumbblings are growing more noticeable and are felt ten miles from the base."

RESIDENTS SEE THE SMOKE.

Although the mountain is more than ninety miles from the city of North Yakima, Wash., the dense cloud of smoke from the crater could be plainly seen by the citizens. By day a small black stem rose out of the mountain's summit and gradually widened into a gigantic pillar extending far into the sky. Then at the top the blackness spread out like the top of a gigantic toadstool. As the smoke rolled out and away from the top of the column and became thinner toward the edge the sun shone through it and gave it a lighter tinge, so that altogether a mighty umbrella with black handle and black cover, whose periphery was an ever tumbling fringe of gray, appeared to stand over the mountain.

At night, in place of the smoke, a column of flame was seen to rise from the crater.

It was the first time in years that the mountain had been so violently agitated. Two years previous the crater smoked unwontedly and there was fear of a blighting eruption, but no fire was emitted. In the 1906 eruption, however, both fire and ashes were thrown out for five days, destroying vegetation over a large area. Before the day of the San Francisco earthquake Rainier had ceased to emit either smoke or ashes and was wholly quiescent.

IN THE LAKE SUPERIOR COUNTRY.

In the Lake Superior region, at the world famous copper mines at Calumet, a distinct shock on Thursday brought consternation to the community. The Lake Superior region is regarded as of volcanic origin and disturbances in the past have not been infrequent.

Shocks were also reported near Colson, N. M., and at Cleveland, Ohio, but no damage to life or property resulted.

That the disturbance in the copper region was more than local was confirmed when Captain Harry Gunderson, of the steamer *Henry Steinbrenner*, arrived in Duluth and reported a remarkable experience on the waters of Lake Superior, due, he believes, to the Michigan earthquake.

The steamer was off Eagle harbor, on Keweenaw Point, about noon, when Captain Gunderson said it suddenly quivered from stem to stern, though there was no shock or jar to indicate grounding. The vessel rocked as if in the throes of a sea, and the needle of the compass raced in a circle. The water became smooth again almost immediately.

THROWN INTO A PANIC.

On the following Saturday seismic disturbances were reported from several parts of Europe. Thirteen shocks were recognized in the province of Siene, Tuscany.

The earthquakes occurred in quick succession and the inhabitants were thrown into a panic. Several buildings were damaged, including the city hall at Poggibonsi, nineteen miles south of Florence.

Subterranean detonations were heard. The shock was felt as far as southern Italy. At Lecce the quake was particularly violent, although no damage was done.

Almost simultaneously with the San Francisco earthquake a slight shock was felt at Moscow, Russia. The seismograph at Moscow University registered the disturbance almost to the hour of its occurrence, beginning at 4:23 in the afternoon of April 18, which, reckoning the difference in time, was 5:30 in the morning in California. The greatest intensity was nine minutes, beginning at 4:27, and the principal movement was from north to south.

At Funfkirchen, Hungary, a shock was felt lasting forty-one seconds.

A submarine volcano off Izu, Japan, erupted April 14. The seismographs at Tokio recorded the earthquake shocks at San Francisco. The first movement lasted eleven minutes. Subsequently there were vibrations lasting nineteen minutes, growing in intensity. The movement then continued light for four hours.

CHAPTER XVIII.

ALL CLASSES SEND QUICK AID.

Intense Suffering of the Victims of Earthquake and Fire Appeal to This and Other Nations—Food and Money Pour Into the Ruined District by Trainloads—None Too Poor or Too Lowly to Render Assistance—Millionaires and Laborers Vie With Each Other in Rushing Help to the Stricken—Unique Ways of Raising Cash to Relieve Distress—Chinese in the United States Forget Race Prejudice and Contribute Their Cash to the General Relief Fund.

Tell us when shall these things be and what shall be the sign of thy coming and of the end of the world.—Math. 24: 3.

For the first time after the earthquake all the suffering inhabitants breakfasted on cooked food the morning of the fourth day. The food was cooked, however, in the open air, no fires being allowed in the houses that remained standing. A few bricks or stones gathered into the semblance of a furnace, with a few dry sticks beneath cans or kettles, formed the improvised kitchens, in which the food of the millionaire as well as the humblest workman was prepared. All through the fine residence section of Pacific Heights people sat on the sidewalks and took their black coffee, dry bread, crackers and, in some cases, eggs and bacon.

In the parks and along the north beach, or wherever people were camped, the relief stations handed out food sufficient to relieve the situation.

That morning, however, the indescribable destitution and suffering were borne in on the authorities with crushing force. Dawn found lines of men, women and children numbering thousands awaiting morsels of food at the various distributing stations.

CHARGED \$1 A LOAF FOR BREAD.

A big bakery was started later in the outskirts of the city, with the announcement that it would turn out 50,000 loaves of bread before night. The news spread and thousands of hungry persons crowded before its doors before the first deliveries were hot from the oven. Here police and soldiers kept order and permitted each person to take only one loaf. The loaves were given out without cost.

These precautions were necessary, for bread had sold as high as \$1 a loaf and two loaves and a can of sardines brought in one instance \$3.50.

Mayor Schmitz took prompt and drastic steps to stop this extortion. By his order all grocery and provision stores in the outlying districts which had escaped the flames were entered by the police and their goods confiscated.

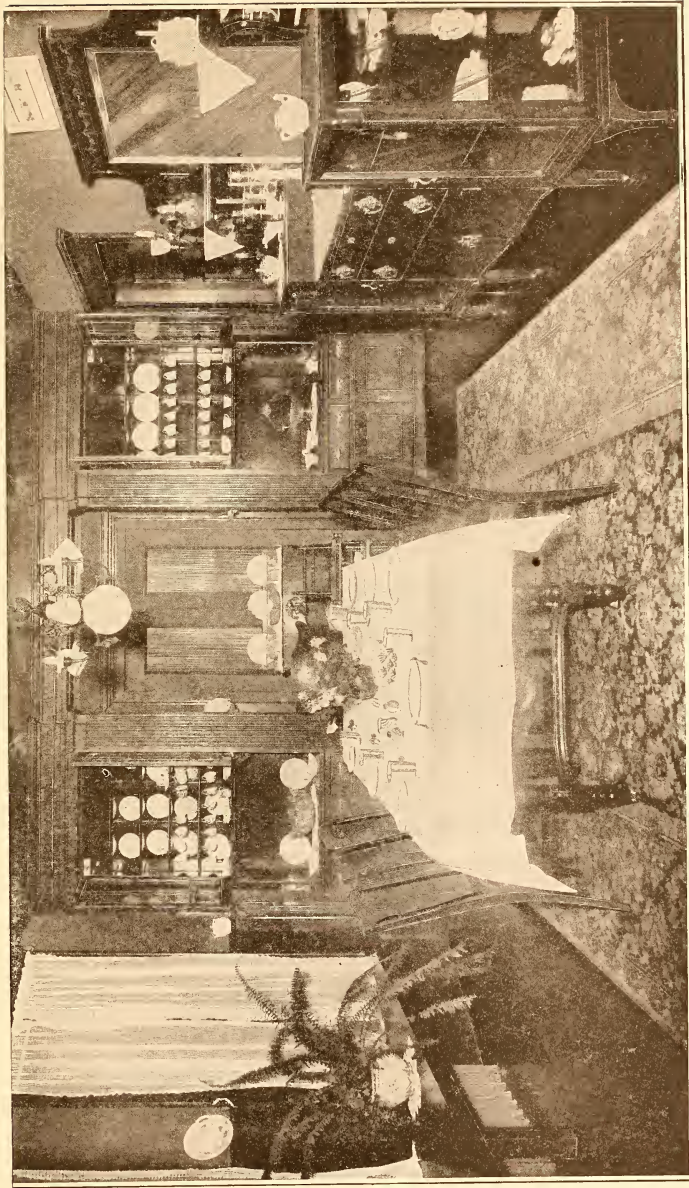


Table Set Ready for Breakfast When the Shock Came.

A policeman reported that two grocery stores were closed, although the clerks were present. "Smash the stores open!" ordered the mayor, "and guard them."

SOLDIER WITH GUN LOWERED PRICES.

In the central part of the city the soldiers checked the outrageous famine prices charged the starving people. Lines of hungry formed before several stores whose supplies had not been commandeered. In one of these the first man was charged 75 cents for a loaf of bread. The corporal in charge at that point brought his gun down with a slam.

"Bread is 10 cents a loaf in this shop," he said.

The soldier's order went. He fixed the schedule of prices a little higher than in fair times, and to make up for that he forced the storekeeper to give free food to hungry people in line who were too poor to pay.

In several other places the soldiers used the same brand of horse sense. "Thank God for the soldiers!" was the exclamation heard everywhere among the sufferers.

For a time it was impossible to secure a vehicle except at extortionate prices. One merchant engaged a teamster and horses and wagon, agreeing to pay \$50 an hour. Charges of \$20 for carrying trunks a few blocks were common. The police and military seized teams wherever they required them, their wishes being enforced at revolver point if the owner proved indisposed to comply with the demands.

SUFFER THREE DAYS FOR WATER.

Next to the need for food there was a cry for water, which for three days the authorities could not answer. Then the officers of the Spring Valley Water Company announced that they were able to furnish the city with 10,000,000 gallons of water. That night wagons mounted with barrels and guarded by soldiers drove through Golden Gate Park doling out water. There was always a crush about these wagons and but one drink was allowed to a person.

The city slept that night in three concentration camps—at the Presidio, Golden Gate Park, and Fort Mason. Many of the rich even deserted their mansions to sleep out of doors for fear that the fire line might sweep on and take their houses with it. There were a few tents, but mainly the people slept out in the fog and the heavy dew, wrapped in blankets and bundled in quilts.

There were some curious makeshifts—tents formed of quilts, hangings, portieres, even old clothes, just enough to hide the nakedness of women who had loosened their clothes for the first time in two days. By each little group, lying out on the grass and under the trees, would be a small bundle of household belongings.

WOMEN AND CHILDREN SLEEP ON HAY.

There was indescribable suffering. Women and children who had comfortable, happy homes a few days ago slept—if sleep came at all—on hay on the wharves, on the sand lots near North beach, some of them under the little tents made of sheeting which poorly protected them from the chilling ocean winds. Thousands of members of families separated, ignorant of one another's whereabouts and without means of ascertaining. To bring families together the police and military opened registration bureaus.

One man who lived on Nob Hill, whose home had been destroyed and who was anxious concerning the welfare of his wife and four children, was a walking grocery store for several days. He had with him \$60 worth of food of all kinds. It was packed in bundles, boxes and grips. He didn't know where he would find his family, but he was going armed, at any rate. The relief committee never learned whether his quest was successful.

SHIPS TRIED TO TAKE FOOD AWAY.

Before the relief trains began to reach San Francisco and while the homeless were barely subsisting on scant army rations, a squad of police in boats patrolled Golden Gate Strait. Two lieutenants and eight men aboard the tug *Sea Rover* in the darkness of the night prevented the departure of several vessels from the harbor for the reason that they carried food. Among them were the barkentines *Eureka* and *Barracuda*, bound for Portland with considerable supplies on board. All the vessels were stopped and compelled to drop anchor in the stream or return to the dock, where the food was unloaded and turned over to the authorities.

On another occasion a similar detail of police succeeded in saving for the unfortunates many tons of food that would otherwise have been carried to cities up and down the coast.

ONE APPEAL BRINGS TRAIN OF FOOD.

Efforts at relief all over the country at first took the form of raising money, it being supposed cash would provide all that the suffering San Franciscans needed. While cities and individuals everywhere were contributing cash in large and small sums, according to ability, W. M. Field, of the Hooke-Field commission firm of San Francisco appeared before the relief committee of Chicago and begged for food and raiment.

"I wish to take the liberty to disagree with the gentleman who has just spoken," said Mr. Field. He referred to John G. Shedd, who insisted that Chicago should wait until it heard authoritatively of the needs of the San Francisco survivors before it sent anything westward. "I know San Francisco and its needs. There were almost 500,000 people in that city on the morning of the earthquake. Not 10,000 have got away by the railroads. The rest have either fled to the nearest towns and cities or are marooned in the parks.

"The entire Pacific coast is now being drained of its food supply to

satisfy the temporary needs of the city. The trouble is going to come a week or a fortnight hence, when the coast has been drained of its stores of food.

"It will take a week to get food into San Francisco from the East, and, if you will permit me, I strongly urge you to start your first train tonight. The people of San Francisco won't need money for the next few months nearly as much as they will need food, clothing and medicines."

As a result of Mr. Field's appeal Chicago business men equipped an entire train with \$30,000 worth of food and clothing within a few hours and dispatched it to the destroyed city.

WOMAN BALKS COMMERCIALISM.

An incident showing how a woman may sway a great audience took place in New York City. Former Californians had met in the Casino of the metropolis to raise a relief fund. Men and women worth millions sat side by side with store clerks and workmen—all made akin through the disaster to their native city. The meeting was under the auspices of Mrs. W. K. Vanderbilt, Jr., and Mrs. Hermann Oelrichs. Mark Twain presided.

Joseph Redding attempted to prove that San Franciscans should be glad of a disaster that had swept away rookeries, had rid San Francisco of great evils, and had made it possible to rebuild the city on modern lines.

"Now, we have a chance to make San Francisco the most beautiful city in the world," said Redding, after he had pointed out the blessings he had found in the disaster.

A woman rose in the middle of the orchestra seats. She was pale and tremulous with excitement.

"I beg your pardon for interrupting," she said in a voice that was shrill and unnatural. "I am the daughter of the man who made the first seal of California, and who made the dies for the first \$5 and \$10 gold pieces ever coined in that State. My dear father lies dead in San Francisco."

She stopped an instant and her frame shook with sobs. Then she went on with a braver voice:

"My dear mother is in Golden Gate Park without bread to eat, without shelter over her head."

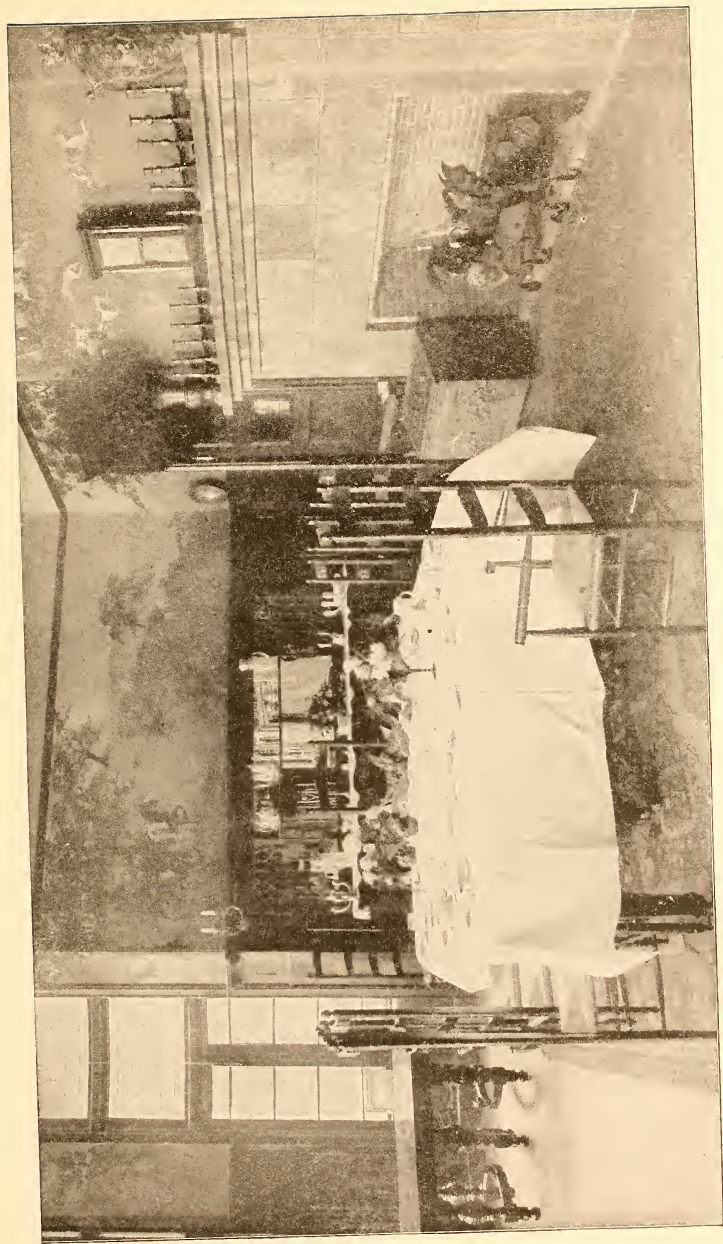
Almost instantly the crowd broke into sobs and cries. It was the first human touch to a meeting that started off with the commercial side to the foremost.

Redding, the speaker, looked dumbfounded. He saw that the people before him were thinking more of sick and homeless friends in the open parks of San Francisco than of a beautiful city to rise above the ruins.

The meeting immediately was transformed into an organization for the collection of funds.

UNIQUE WAYS OF RAISING CASH.

A unique method of raising funds for the sufferers was that of the Cali-



Dining Room of a Beautiful Home Destroyed in the Crash.

ifornia Fruit Growers' Association in New York, which held an orange sale. A large part of the fruit in New York belonging to the members of the association was put up at auction at the Erie Pier on the North River. The entire proceeds of the sale went to the sufferers.

Another instance of New York enthusiasm in raising funds was seen when Willie Hoppe, a boy billiardist, sold papers in front of the Flatiron building and at the Polo grounds, getting more than \$300. Two hundred dollars was raised, too, by girls selling flowers in the streets of Gotham.

CHINESE GIVE GENEROUSLY.

Chinamen scattered in various cities throughout the United States were moved to sympathy by the earthquake and fire disaster. Thousands of their countrymen in San Francisco were facing starvation, but in making gifts to the relief fund no Chinaman requested that his donation go to any particular class of sufferers. All were confident justice would be done to Chinaman and American alike. An appeal was sent to Canton and Hong Kong, China, asking for the co-operation of those cities in the relief work. The majority of the Chinamen in the United States are Cantonese, and their appeal met with a liberal response at home.

The first Chinese contribution was made by the Chinese colony in Chicago. Its relief committee was organized without any suggestion from Americans. Within three days the committee visited Mayor Dunne and laid four bright, new \$1,000 bills before him, its chairman, Wing Tank, at the same time saying:

"The Chinese people in this country will do their part to feed the hungry people. The Chinese colony in Chicago numbers about 1,800, and we already have \$4,000 cash in hand and will make the amount \$6,000 before another night. We wish this money to be used in caring for all who are suffering regardless of race. We have heard that the American people have been feeding the destitute Chinese in San Francisco, and at a time like this we must treat all alike."

MOVE MAYOR TO TRIPLE HIS GIFT.

Mayor Dunne was so moved by this unexpected generosity from men who for the most part earn a livelihood over the washtub that he decided he could afford a larger contribution than he had made. Consequently he at once added \$100 to the \$50 he had already given, making his total at the time \$150.

In addition to his cash offering Wong Fa, a Chicago Chinese merchant, who has several branch stores in California, wired to his store in Los Angeles to ship all the groceries and provisions in stock to the stricken city.

SUFFERER GIVES HALF SHE HAS LEFT.

But if the generosity of the thousands outside the stricken district is

deserving of admiration and praise, what may be said of one who lost nearly everything in the disaster and yet gave liberally of what remained to those worse off? Mrs. Hugh Crum, long a wealthy property owner of San Francisco, reported to the relief committee in Oakland that all her income-bearing property had been destroyed, but that she had a little money in the banks, which she proposed to divide equally with the relief committee. She therefore subscribed \$10,000 to the relief fund.

Numerous instances of that kind were recorded by the distributors of aid, the incidents tending to show that after all has been said of American greed the love of money nowhere begins to equal man's love for man.

STRANGE SCENES AMONG RECIPIENTS.

Meantime in San Francisco there were many picturesque though pathetic scenes. There were no disorders when the hungry thousands were told to form a line and receive their bread and canned goods. All were content to wait their turn. Silk-hatted men followed good naturedly behind Chinese and took their loaves from the same hand.

At the ferry station there were unusually pathetic scenes among the hungry people. When the first boat came in from Stockton with tons of supplies a number of small children were the first to spy a large box of sandwiches with cries of delight. They made a rush for the food, seized as much as they could hold and rushed to their mothers with shouts of "Oh, mamma, mamma, look at the sandwiches!"

Seated around the ferry landing sat hundreds of people sucking canned fruits from the tins. Some were drinking condensed cream and some were lucky enough to have sardines or cheese.

At several places along Market street scores of men were digging with their hands among the still smoking debris of some large grocery house for canned goods.

When they secured it, which they did without molestation from anybody, they broke the tins and drank the contents.

At Filbert and Van Ness avenue one night a wagon of supplies conveyed by soldiers was besieged by a crowd of hungry people.

They appealed to the soldiers for food and their appeals were quickly heeded. Seizing an ax a soldier smashed the boxes and tossed the supplies to the crowd, which took time to cheer lustily.

An incident showing the universal sympathy for the sufferers was given by the boys of Kenwood, an aristocratic neighborhood of Chicago, who built an open air theater in the rear of 95 Forty-seventh street, where they gave an entertainment to raise a relief fund. Kenwood had been billed for the novel affair. The proceeds were forwarded for the benefit of boys under 12 years of age who suffered by the San Francisco disaster. The promoters of the entertainment were Gordon Thorne, 99 Forty-seventh street; Kenneth and Darwin Curtis, 77 Forty-seventh street; Gilbert and Dwight Maxwell, and Robert Bruihm.

CHAPTER XIX.

WIRED INCIDENTS AMID SUFFERING.

Pays \$100 for a Carriage—Letters Go Without Stamps—Fat Man Carries Bird Cage—Misses Death by Few Inches—Goes With Coffin in Flight—Prima Donna Clad as a Man—Sky-scrapers Stand Shock Best—Twelve Gored to Death—Woman "Waiting for Husband."

And the kings of the earth, and the great men, and the chief captains, and the mighty men, and every bond man, and every free man hid themselves in the dens and in the rocks of the mountains.—Rev. 6: 15.

Among the refugees in Berkeley was a woman with three baskets of cats. She was dressed in what had been a handsome silk gown, but now was in tatters. She offered a diamond ring of at least one and a half karats for food for herself and pets. She was penniless, but said her husband was rated by Bradstreet's at \$350,000.

W. H. Sanders, consulting engineer of the United States Geological Survey, insisted on paying his hotel bill before he left the St. Francis. He said:

"Before leaving my room I made my toilet and packed my grip. The other guests had left the house as I hurried down the lobby. There I met the clerk, who had rushed in to get something. I told him I wanted to pay my bill. 'I guess not,' he said, 'this is no time for settlement.'

"As he ran into the office I cornered him, paid him the money, and got his receipt, hurriedly stamped."

PAYS \$100 FOR A CARRIAGE.

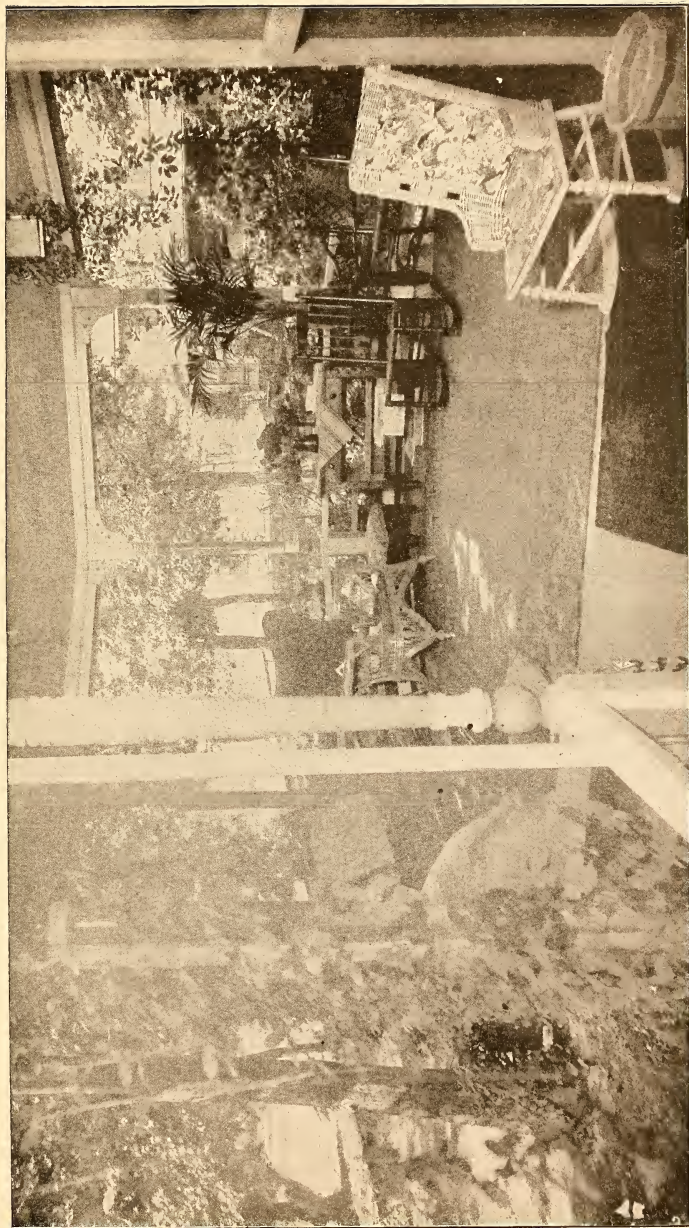
Miss Bessie Tannehill, an actress at the Tivoli Theater, paid \$100 for a short carriage ride.

"I was asleep in the Hotel Langham, Ellis and Mason streets, when the shock came," said Miss Tannehill.

"At the first shock I leaped from the bed and ran to the window. Men, women and children, almost without clothing, crowded the place, crying and praying as they rushed out.

"When outside I saw the streets filled with people, who rushed about wringing their hands and crying. Proprietor Lisser of the hotel offered a cabman \$50 to take himself and his wife to the Presidio Heights, but he refused. He wanted more money. We finally secured a carriage by paying \$100. Fire was raging at this time and people were panic stricken.

"I saw many looters and pickpockets at work. On Mission street a band of thieves was at work. They were pursued by troops, but escaped in an auto."



A Typical San Francisco Home.

BABIES BORN IN THE PARK.

Reports of babes being born in the refugee camps were frequently received. Five women became mothers in Golden Gate Park. The main remaining fire was confined to east of Van Ness avenue and north of Union street, but was burning its way to the shore.

The police broke open every saloon and corner grocery in the saved districts and poured all malt and spirituous liquors into the gutters.

Women staggered under burdens they were loath to relinquish, stumbling over the obstructions of stone and entangling wires; men hauled trunks on wheelbarrows; shouldered suit cases, bedding or household goods.

Some trundled go-carts containing their sleeping children with one hand, assisting their exhausted wives with the other. Drivers of the vehicles were disregardful of these exhausted, hungry refugees and drove their animals straight through the crowds.

FAT MAN CARRIES BIRD CAGE.

"There was some humor and a lot of pathos in the crowded streets after the shock," said A. Dalrymple, of New York.

"I ran from the Grand Hotel, with the plaster showering down on my head, and the first thing I saw was a man, with blood streaming from cuts on his head and body, carrying a dead woman in his arms. He was the janitor of a three-story building and had found himself in the basement with his dead wife beside him. The building had split in two.

"I saw one big, fat man calmly walking up Market street carrying a huge bird cage in his arm, and the cage was empty.

"In Fell street an old lady scantily dressed was pushing a sewing machine up the hill. That sewing machine was her world just then.

"At the park a man came in carrying a large carved, wooden Japanese statue. He laid it on the grass as carefully as if it had been his wife or child.

"It seemed as if every other person was carrying a phonograph, with the big trumpet tucked under his arm. I never before realized there were so many.

"At the Panhandle in the evening was an eighty-year old woman who had owned two buildings that were destroyed. She was the most cheerful one in the park."

LETTERS GO WITHOUT STAMPS.

Letters from San Francisco for several days were sent through the mails free of postage. This was made necessary on account of the unprecedented demand for stamps, which the local postoffice could not supply.

Eleven postal clerks were taken from the debris of the postoffice on Friday. All were thought to be dead, but it was found that, although they were buried in the stone, every one was alive. They had been for three days without food or water. All the mail was saved.

IMPOSSIBLE TO DELIVER TELEGRAMS.

The delivery of telegraphic messages from outside points to people in San Francisco was an impossibility for several days. The messenger service of both the big telegraph companies no longer existed.

Even had the companies an army of messengers they would have been of little value, for the reasons that the people were scattered far and wide and a journey from the ferry building to the western addition or to the refugee camps consumed many hours.

Most of the automobiles were impressed into the service of the police or military authority, and these had but one circuitous route from the one telegraph station at the water front to municipal headquarters and the unswept western portions.

Unable to establish telegraphic communication with the north, the Western Union Telegraph Company sent more than 5,000 private messages to San Francisco and Oakland by train, to be delivered by special messengers in the stricken cities, but not more than a score or so reached the addresses.

PRIEST SAYS MASS MIDST RUINS.

From Fort Mason, where most of the Italians and Spaniards from the Telegraph Hill had passed the night, there started on the third day an early morning exodus for the ferry. A priest of the church of SS. Peter and Paul—"the church of the fishermen," they call it—had saved from the church the host, vestments and sacred vessels.

Early in the morning he set up an altar in the open air and said mass. Then the march to the ferry began. Every vehicle in the city, even push carts and wheelbarrows, was in use by the city authorities and the soldiers. The chief means of transportation for personal goods, therefore, was baby carriages.

The line of crying, jostling foreigners shoving overloaded baby carriages ahead of them was half pitiful and half comic. The carriages kept breaking down, and the line of march to the ferry building was strewn with their wreckage.

Harry L. Pittock, publisher of the Oregonian of Portland, Ore., was a guest of the Occidental Hotel when the crash came. Mr. Pittock was not injured by the falling walls, but his suit case, lying open beside his bed, was flattened like a pancake. He was forced to walk the streets during Wednesday and Wednesday night, but found quarters on Thursday night.

A strange case of shooting was that of a foreigner who was ordered to chop down some trees by a soldier. Not understanding English, the foreigner started to walk away and was shot through the body and dangerously wounded.

GOES WITH COFFIN IN FLIGHT.

One young girl followed for two days the body of her father, her only

relative. It had been taken from a house in Mission street to an undertaker's shop just after the quake. The fire drove her out with her charge, and it was placed in Mechanics' Pavilion.

That went, and it had rested for a day at the Presidio, waiting burial. With many others she wept on the border of the burial area, while the women cared for her.

A man passing through Portsmouth Square noticed a mother cowering under a bush. She was singing in a quavering voice a lullaby to her baby. He parted the bushes and looked in. Then he saw that what she held in her arms was only a mangled and reddened bit of flesh. The baby had been crushed when the shock of earthquake came and its mother did not know that its life had left it thirty hours before.

PIN NAMES AND ADDRESSES TO TREES.

When the third morning came the people prepared to make permanent the camp in Golden Gate Park. An ingenious man hung up before his little blanket shelter a sign on a stick giving his name and his address before the fire wiped him out. This became a fashion, and it was taken to mean that the space was pre-empted.

Toward midnight a black, staggering body of men began to weave through the entrance. They were volunteer fire fighters looking for a place to throw themselves down and sleep. These men dropped out all along the line and were rolled out of the driveways by the troops.

There was much splendid unselfishness here. Women gave up their blankets and sat up or walked about all night to cover exhausted men who had fought fire until there was no more fight in them.

PRIMA DONNA CLAD AS A MAN.

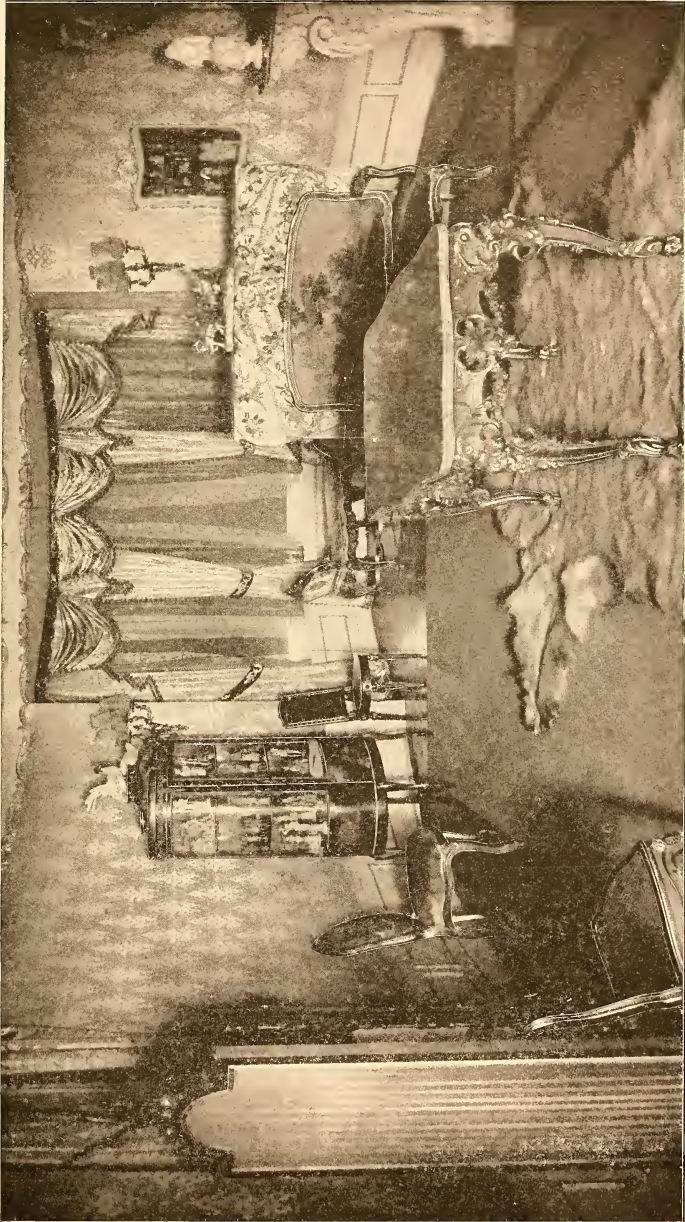
All of the grand opera stars had exciting experiences. The prima donnas escaped from the hotel in their night dresses, and the world famous tenors, bassos and baritones in their pajamas, none pausing to dress when the first shock of earthquake was felt.

Caruso, the tenor, was one of the first to escape from the Palace Hotel. A few minutes after the first shock he was found, barefooted and pajama clad, seated on his valise in the middle of the street.

One charming contralto fled from the swaying, reeling hotel in her night clothes and without stopping to save any of her personal effects. Unable to procure other clothing, she finally was compelled to don some necessary articles of attire originally designed for a man.

One singer was seen standing in the street, barefoot, and clad only in his underwear, but clutching a favorite violin, which he had carried with him in his flight.

Rossi, a favorite basso, though almost in tears, was heard trying his voice at a corner near the Palace Hotel.



Interior of a San Francisco Home of Wealth Before the Disaster.

SKYSCRAPERS STAND SHOCK BEST.

The great modern steel structures were least injured by the earthquake itself, except for cracked walls and displaced plaster. All these huge structures subsequently were utterly ruined by the flames so far as the interior construction is concerned, but the walls were in some cases intact. The most notable cases of practical immunity from the shock were the St. Francis Hotel, the Fairmont Hotel, the Flood building, the Mills building, the Spreckels building, the Chronicle building, and scores of other modern steel structures.

The branch of the United States mint on Fifth street and the new post-office at Seventh and Mission streets furnished striking examples of the superiority of the workmanship put into federal buildings. The old mint building, surrounded by a wide space of pavement, was absolutely unharmed. Not even the few palm trees which stand on either side of its broad entrance were withered by the flames that devoured everything around it.

FORCED TO SAVE PAINTINGS.

There was a sharp, businesslike precision about the soldiers. The San Francisco water rat thug and "Barbary coast" pirate may flout a policeman, but he discovered he could not disobey a man who wore Uncle Sam's uniform without imminent risk of being counted in that abstract mortuary list usually designated as "unknown dead."

For instance: When Nob Hill was the crest of a huge wave of flame, soldiers were directing the work of saving the priceless art treasures from the Mark Hopkins Institute. Lieut. C. C. McMillan, of the revenue cutter Bear, impressed volunteers at the point of a pistol to assist in saving the priceless art treasures which the building housed.

"Here, you," barked Lieut. McMillan to the great crowd of dazed men, "get in there and carry out those paintings."

"What business have you got to order us about?" said a burly citizen with the jowl of a Bill Sykes.

The lieutenant gave a significant hitch to his arm and the burly man saw a revolver was hanging from the forefinger of the lieutenant's right hand.

"Look here," said the lieutenant. "You see this gun? Well, I think it is aimed at your right eye. Now, come here. I want to have a little talk with you."

The tough stared for a moment and then the shade of fear crept over his face, and with an "All right, boss," he started in upon the labor of recovering the art treasures from the institute.

"This is martial law," said the determined lieutenant. "I don't like it, you may not like it, but it goes. I think that is understood."

HUMANITY'S SCUM ON TOP.

A crew of hell rats crept out of their holes and in the flamelight plundered and reveled in bacchanalian orgies like the infamous intimates of Javert in "Les Miserables." These denizens of the sewer traps and purlieus of "The Barbary Coast" exulted in unhindered joy of doing evil.

Sitting crouched among the ruins or sprawling on the still warm pavement scores were seen brutally drunk. A demijohn of wine placed on a convenient corner of some ruin was a shrine at which they worshiped. They toasted chunks of sausage over the dying coals of the cooling ruin even as they drank, and their songs of revelry were echoed from wall to wall down in the burnt Mission district.

Some of the bedizened women of the half world erected tents and champagne could be had for the asking, although water had its price. One of these women, dressed in pink silk with high heeled satin slippers on her feet, walked down the length of what had been Natoma street with a bucket of water and a dipper, and she gave the precious fluid freely to those stricken ones huddled there by their household goods and who had not tasted water in twenty-four hours.

"Let them drink and be happy," said she, "water tastes better than beer to them now."

TWELVE GORED TO DEATH.

Twelve persons met death from the hoofs and horns of 300 cattle which stampeded at Sixth and Folsom streets.

Terrified by the flames which were sweeping down upon them, the herd ran madly through the street, crushing everything before it.

An aged man who was crossing the street was the first to die. He was gored to death.

The herd finally was scattered and many of the animals have been killed for beef by citizens.

Among the pathetic incidents of the fire was that of a woman who sat at the foot of Van Ness avenue on the hot sands on the hillside overlooking the bay east of Fort Mason with four little children, the youngest a girl of 3, the eldest a boy of 10. They were destitute of water, food and money.

The woman had fled with her children from a home in flames in the Mission street district and tramped to the bay in the hope of sighting the ship which she said was about due, of which her husband was the captain.

"He would know me anywhere," she said. She would not move, although a young fellow gallantly offered his tent back on a vacant lot in which to shelter her children.

ALL DISTINCTIONS WIPED OUT.

The common destitution and suffering wiped out all social, financial and racial distinctions. The man who was a prosperous merchant occupied with

his family a little plot of ground that adjoined the open-air home of a laborer. The white man of California forgot his antipathy to the Asiatic race and maintained friendly relations with his new Chinese and Japanese neighbors.

The society belle who was a butterfly of fashion at the grand opera performance the night of the earthquake was assisting some factory girl in the preparation of humble daily meals next day. Money had little value. The family who had foresight to lay in the largest stock of foodstuffs on the first day of the disaster was rated highest in the scale of wealth.

A few of the families that could secure willing expressmen were possessors of cooking stoves, but over 95 per cent of the refugees did their cooking on little camp fires made of brick or stone. Kitchen utensils that previously would have been regarded with contempt were articles of high value.

Many of the homeless people were in possession of comfortable clothing and bed covering, but the great bulk of them were in need.

A well known young woman of social position when asked where she had spent the second night replied: "On a grave."

WAGON HIRE \$50 AN HOUR.

It was impossible to secure a vehicle except at extortionate prices. One merchant engaged a teamster and horses and wagon, agreeing to pay \$50 an hour. Charges of \$20 for carrying trunks a few blocks were common. The police and military seized teams wherever they required them, their wishes being enforced at the revolver point if the owner proved indisposed to comply with the demands.

Three-quarters of the people were helping each other, sharing rations, helping to hunt for the missing, and caring for the sick. One-quarter were grabbing and storing food, trying to make money from the necessities of others, ready to rob and to plunder. One old man who went over alone on the ferry to Oakland wore a big overcoat, although the weather was mild. He appeared fat and walked with difficulty. A soldier took a good look at him, stepped forward, ripped his overcoat open, and found he had tied bags of provisions all about his body like a life preserver.

\$200,000,000 IN MINT SAVED.

Like a great monument in the midst of a ruined city stood the United States mint, the only building remaining in the heart of what once was the business center of San Francisco. On all sides were fallen walls and heaps of ashes, but in the vaults of the great treasure-house were gold coins and bars valued at \$200,000,000, safe within the solid walls of stone and steel.

The story of the fight to save this vast treasure is a tale of heroism that stirs the blood. For hours forty employes of the mint and a hundred men of the regular army fought to save the gold. One of the heroic band said: "The price was worth fighting for, and we fought and won."



Chinatown Has Been Destroyed.

The worst part of the first big fire broke out one block from the mint. Within an hour the entire block of big frame buildings on the opposite side of Mission street was a flaming mass. With the first fire alarm the mint force realized their danger. There was a deep well in the mint basement which gives it an independent water supply, and the pumps were at once started working at their full capacity, and the hose lines were laid. Roofs, windows and walls were kept wet, and, although the streams were pitifully weak, they served the purpose.

ONLY ONE STREAM OF WATER.

Then came a hundred soldiers from the Presidio. They joined the gallant band of fire fighters. The flames spread on all sides, but the brave men stood at their posts in face of gravest danger. Towering sheets of flame cut them off from the world. The roar and crackle of the flames was appalling, but none flinched. The fire department for a time was able to aid in the battle with a single stream of salt water, but finally it was driven back by the flames, and the mint men and soldiers fought alone.

There were times when the walls grew intensely hot as the flames' fierce blasts swept upon them. Cooling streams from mint walls warded off the danger. From the west and south the flames spread. On four sides the mint was hemmed in by flaming buildings, while only narrow streets separated it from the fire.

For seven long hours in the intense heat the men remained at work, and then the billows of fire swept on to spread ruin in buildings miles away, leaving Uncle Sam's treasure-house intact.

SAVES OAKLAND BY STOPPING DYNAMOS.

The fire in 'Frisco started in fifteen places simultaneously, and it is supposed it was due to the breaking of the electric wires downtown in the wholesale districts, and to the upsetting of lamps and oil stoves in the tenement section, following the earthquake.

The same catastrophe in the shape of fire might have visited Oakland had not the man in charge of the light and power plant had the good judgment to shut off all electricity at the dynamos on the first jar of the earthquake. This undoubtedly was the only thing that saved Oakland from the same fate that befell San Francisco.

John Murphy, the millionaire banker and philanthropist, of Pittsburg, notified Mayor Guthrie that he would pay the railroad fare of 1,000 families who were homeless in San Francisco, give them good houses in Pittsburg in which to live rent free for one year, and furnish employment for the heads of the families and all others who desired to work.

Mr. Murphy was acting for a number of Pittsburgers, but at once placed at the disposal of the mayor ten houses of his own with rent free for a year for any families that could arrive within a week.

CHAPTER XX.

LOSS, \$500,000,000—REBUILDING THE CITY.

Earthquake and Flame Sweep Away Property Valued at \$500,000,000—Insurance Companies Hit for More Than \$200,000,000—Giant Concerns Rise to the Emergency and Pay Loss—Victims of the Disaster, Their Courage Unbroken—Begin Rebuilding the City Before the Ruins are Cold—New 'Frisco a Rival of World Renowned Paris from the Standpoint of Beauty.

But the heavens and the earth which are now, by the same word are kept in store, reserved unto fire against the day of judgment.—2 Peter 3-7.

The property loss by reason of the earthquake and the fire in San Francisco amounted in the aggregate to fully \$500,000,000—a figure that cannot be realized by the ordinary mind.

If every man, woman and child in the United States was to contribute about \$8.50 each the sum total of the contributions would just about pay the loss 'Frisco suffered. Great as was the loss, it did not discourage the people of the Golden Gate city, and long before the ashes of the once proud metropolis were cold the work of rebuilding was under way.

While the fire was at its height one man wanted to know whether the fire had reached his home. He was informed that there was not a house standing in that section of the city. He shrugged his shoulders and whistled.

"There's lots of others in the same boat," as he turned away.

And those men who have lost everything started plans to begin all over again.

"Going to build?" repeated one man who lost family and home inside of two hours. "Of course, I am."

"They tell me that the money in the banks is all right and I have some insurance. Fifteen years ago I began with these," showing his hands. "and I guess I'm game to do it over again. Build again? Well, I wonder."

SPIRIT IS NOT BROKEN.

These little things showed the spirit with which the people of San Francisco faced the worst that the fates could send. They were down but not out. The spirit of '49 lived and moved among those tattered refugees, and no loss could crush it out.

These were the sons of the men who made San Francisco the greatest city in the West. To them and their sons was given the task of retrieving a city's fortunes.

No fire in the history of the world fell as heavily on the fire insurance companies as the San Francisco disaster.

Seventy-eight American and thirty foreign companies carried risks in

the city of the Golden Gate, and their total underwriting was \$238,880,000. The loss was not total, but even the liability exceeded anything in the history of previous fires.

The Home Insurance Company of New York at once compiled a list of the insurance carried, which showed that the losses were nearly \$50,000,000 greater than in the great Chicago fire, which resulted in scores of weak companies being wiped out of existence.

CALIFORNIA COMPANIES SUFFER.

The companies hardest hit by the earthquake fire catastrophe were the California concerns, which suffered doubly. They had to draw on their treasuries to pay losses, and as their assets were invested principally in San Francisco bonds and mortgages, they were unable to realize from a source that was destroyed.

The bulk of the damage was in the business, financial and manufacturing districts, where the policies were large in amount and where the greatest destruction was wrought by the flames.

E. H. A. Correa, vice-president of the Home Insurance Company, and an expert in the adjustment of losses, said while watching the fire that, notwithstanding the unparalleled character of the disaster, there was a considerable reduction from salvage on buildings of iron and steel construction, the frames of which were later utilized in rebuilding.

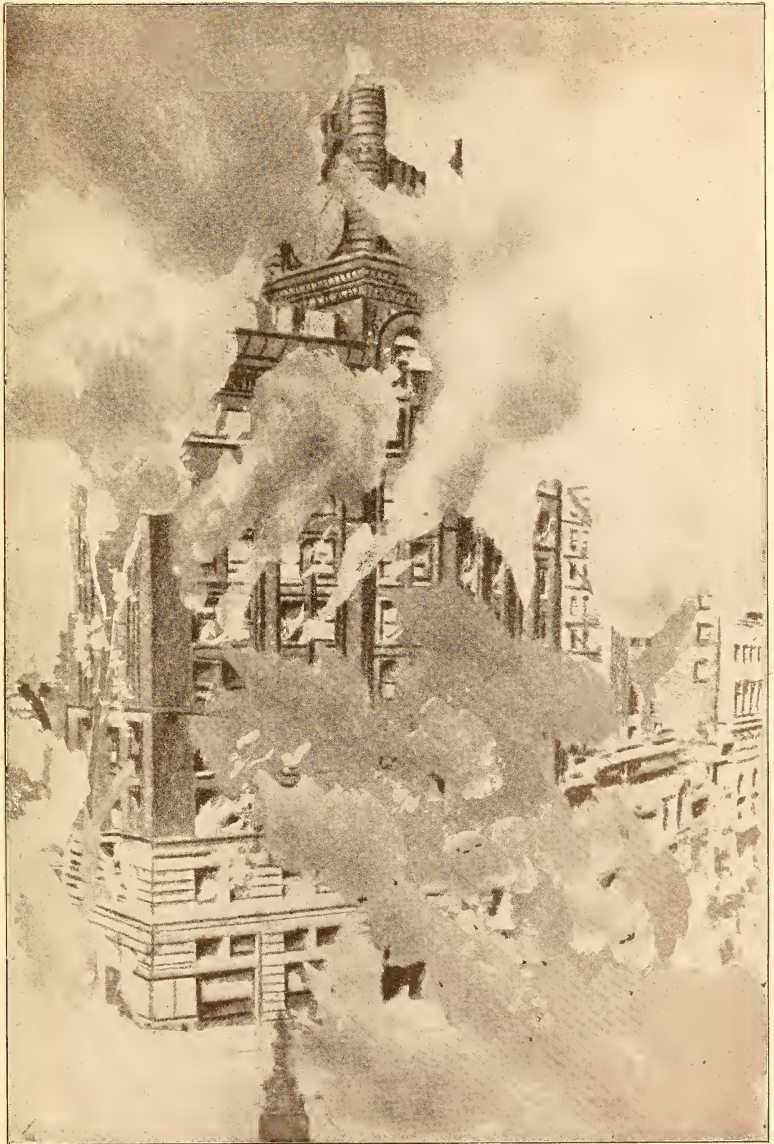
There was a further reduction of liability where damage was done by the earthquake alone, but with all these reductions subtracted, the total payment by the companies went far beyond the combined losses of great fires in the United States in half a century.

LIST OF AFFECTED COMPANIES.

Following is a list of the companies and the risks they carried:

DOMESTIC.

| | Amount of risk in San Francisco | | |
|--------------------------------|------------------------------------|--------------------------------|-----------|
| | | Globe and Rutgers | 1,280,000 |
| | | Alliance, Philadelphia | 1,624,000 |
| Fireman's Fund, San Fran- | | German National, Chicago | 1,286,000 |
| cisco | \$ 6,208,000 | Providence, Washington . . | 1,256,000 |
| Home, San Francisco | 2,488,000 | Glens Falls | 1,232,000 |
| Pacific Underwriters, San | | German, Peoria, Ill. | 1,176,000 |
| Francisco | 1,648,000 | Orient, Hartford | 1,144,000 |
| New York Underwriters, | | Dutchess, Poughkeepsie, | |
| Hartford, Citizens' of | | N. Y. | 1,128,000 |
| Louis, 70 per cent of its | | Calumet, Chicago | 1,104,000 |
| risk | 12,636,000 | Girard Fire & Marine | 1,096,000 |
| Citizens', St. Louis, 30 per | | Mercantile, Boston | 1,040,000 |
| cent of its own risk | 420,000 | Delaware, Philadelphia . . | 1,000,000 |



The Call Building as the Fire Destroyed It.

| | | | |
|-----------------------------|-----------|-----------------------------|---------|
| Phenix of Brooklyn..... | 4,944,000 | American, Boston | 984,000 |
| North German | 4,712,000 | Colonial Underwriters, | |
| Traders', Chicago | 4,640,000 | Hartford | 976,000 |
| Pennsylvania | 4,408,000 | Eagle, New York..... | 952,000 |
| German, Freeport, Ill. | 4,241,000 | North German, N. Y. | 928,000 |
| Insurance Co. of North | | Northwestern National, | |
| America | 3,912,000 | Milwaukee | 880,000 |
| Germania, New York..... | 3,720,000 | United Firemen's, Phila- | |
| Aetna, Hartford | 3,576,000 | delphia | 880,000 |
| German-American | 3,560,000 | Rochester German | 856,000 |
| Home, New York..... | 3,176,000 | Spring Garden, Philadel- | |
| Milwaukee Mechanics' ... | 2,736,000 | phia | 760,000 |
| Connecticut | 2,728,000 | North River, New York.. | 720,000 |
| Continental, New York... | 2,712,000 | New Hampshire | 712,000 |
| Niagara | 2,648,000 | Philadelphia Underwriters | 712,000 |
| National, Hartford | 2,416,000 | Caledonian American, New | |
| Fire Association of Phila- | | York | 704,000 |
| delphia | 2,296,000 | Union, Philadelphia | 696,000 |
| Phoenix, Hartford | 2,240,000 | Michigan Fire & Marine.. | 632,000 |
| American, Philadelphia ... | 2,200,000 | Security, Baltimore | 624,000 |
| Springfield Fire & Marine | 2,088,000 | German Alliance, N. Y. ... | 584,000 |
| Queen, America | 1,910,000 | Nassau, Brooklyn | 584,000 |
| Hanover, New York..... | 1,848,000 | Pelican, New York..... | 576,000 |
| Franklin, Philadelphia ... | 1,672,000 | New York Fire..... | 552,000 |
| National Union, Pittsburg | 1,672,000 | Concordia, Milwaukee ... | 504,000 |
| American Central, St. | | Atlanta, Birmingham ... | 496,000 |
| Louis | 1,584,000 | Security, New Haven.... | 488,000 |
| American, Newark | 1,512,000 | Equitable, Providence ... | 464,000 |
| St. Paul Fire & Marine... | 1,496,000 | Teutonia, New Orleans... | 424,000 |
| Williamsburg City | 1,400,000 | Indemnity, New York... | 376,000 |
| Westchester, New York.. | 1,400,000 | Austin, Texas | 344,000 |
| Citizens', St. Louis..... | 1,400,000 | Commercial Union, N. Y.. | 328,000 |
| Agricultural, Watertown . | 1,304,000 | British-American, N. Y. ... | 240,000 |
| | | Queen City, South Dakota | 162,000 |

FOREIGN.

| | | | |
|---------------------------|-----------|---------------------------|-----------|
| London Assurance | 7,016,000 | Alliance, London | 3,496,000 |
| Royal, Liverpool | 6,688,000 | Union, London | 3,384,000 |
| Trans-Atlantic, Hamburg. | 5,912,000 | Sun, London | 3,200,000 |
| London and Lancashire... | 5,180,000 | Atlas, London | 3,176,000 |
| Rhine and Moselle, Stras- | | Palatine, London | 2,736,000 |
| burg | 4,768,000 | Austrian, Phoenix, Vienna | 2,440,000 |
| Liverpool and London and | | Norwich Union, England. | 2,424,000 |
| Globe | 4,688,000 | New Zealand | 2,336,000 |

| | | | |
|------------------------------|-----------|-----------------------------|-----------|
| Royal Exchange, London. | 4,520,000 | Law, Union and Crown.. | 2,240,000 |
| Hamburg-Bremen | 4,448,000 | Svea of Gothenburg, Swe- | |
| Phoenix, London | 5,704,000 | den | 2,072,000 |
| Northern, London | 4,288,000 | Scottish Union & National | 1,752,000 |
| Aachen and Munch. | 3,952,000 | Scottish Underwriters . . . | 368,000 |
| Commercial Union, London | 3,920,000 | Western Toronto | 1,392,000 |
| Caledonian, Scotland | 3,578,000 | State, Liverpool | 1,232,000 |
| North British and Mercan- | | British American, Toronto | 1,064,000 |
| tile | 3,560,000 | Manchester, England | 448,000 |

LIFE CONCERNS LITTLE AFFECTED.

Life insurance companies were little affected by the San Francisco disaster. Some of them had a few extra claims. A few which had investments in San Francisco securities lost something in that way.

Temporarily there was a slight slump in the value of their other securities owing to some fire insurance companies being compelled to turn securities into cash to meet their losses. But on the whole the life insurance companies scarcely felt the disaster.

The Metropolitan Life of New York, which did practically all the industrial life insurance business in San Francisco, had a number of claims on the lives of those killed by the earthquake, which did most of its killing in the lodging house and poor districts, where industrial insurance was carried.

The Pacific Mutual Life Insurance Company of San Francisco, with which had been merged the Conservative Life Insurance Company of Los Angeles, suffered perhaps more than others, owing to the loss of its home office building and the fact that it owned more San Francisco securities than other companies, or most of them.

ACCIDENT CLAIMS WERE HEAVY.

Accident insurance companies had many claims to pay. The Pacific Mutual Life of San Francisco has long had a large accident department and had a good business in its home city. Other prominent accident companies were also operating there.

The fact, however, that the greatest mortality occurred among the poor people, who were least likely to carry accident insurance, let the companies out much more lightly than a similar number of deaths on a railroad train or steamboat would have done.

Health insurance was not yet written in such large amounts as to cut a great figure in the results of the disaster.

There were a considerable number of claims, however, due largely to the exposure and awful strain to which the people were subjected.

The catastrophe cost the credit insurance companies dearly. The amount of these losses was tremendous. These companies insure jobbers and wholesalers against loss through bad debts over a certain amount.

The contracts run for a year and adjustments are made after the results of the year are shown by the merchants' books.

The credit companies do business at large commercial centers all over the country and within a few months after the disaster merchants in New York, Chicago, St. Louis, Denver, Portland and other points having large dealings with San Francisco presented claims for losses due to the inability of San Francisco merchants to meet their obligations to them.

Others who did not deal with San Francisco had some claims due to the embarrassment of merchants in other cities on account of their inability to collect from their San Francisco debtors.

CITY WAS A DANGEROUS RISK.

From the standpoint of the underwriter San Francisco has been unique. A manager who spent most of his life there said soon after the earthquake and fire that to the average fire underwriter from another part of the country San Francisco would appear to be uninsurable.

It was a redwood town. The number of its fireproof buildings and risks equipped with automatic sprinklers was small as compared with other cities.

Its hills were steep and it was subject to wind a large part of the time.

From an insurance man's standpoint all these features were against it and they would have been sufficient to cause companies to assume only limited liabilities in most instances.

Yet companies may almost be said to have plunged into San Francisco. For years they wrote jumbo lines in the congested district—and in San Francisco values were worse congested in a limited area than they are in other great cities.

Underwriters there for years made money for their companies partly by luck, partly by reason of the climate and largely because the city had one of the best fire departments in the world.

The low loss ratio for years was a continued temptation to companies to go in for large lines.

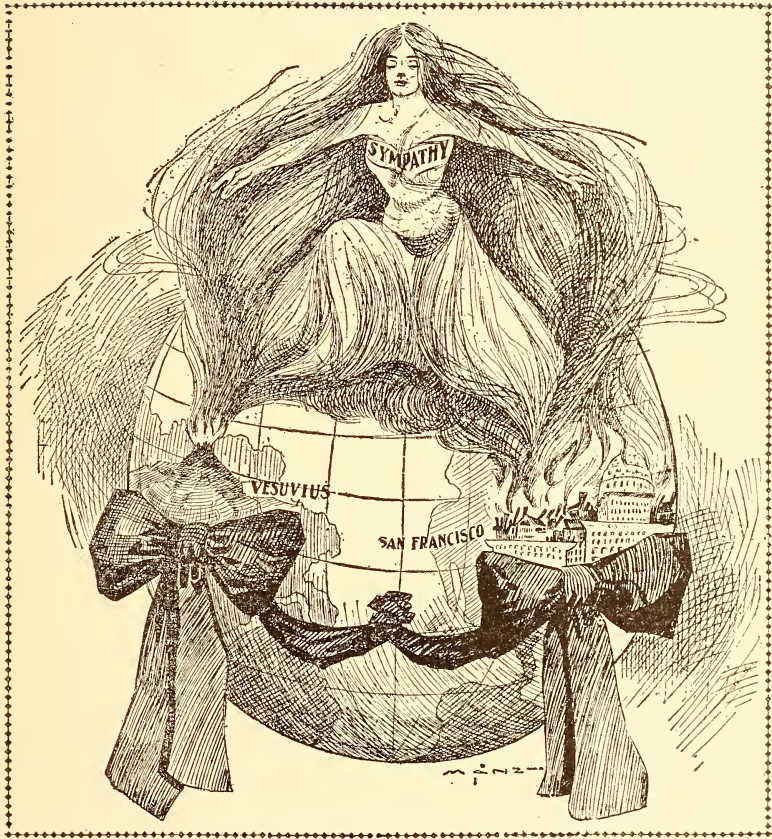
While to an outsider the proposition looked dangerous, the local men knew that the winter was a rainy season, the summer nights were foggy, so buildings never got thoroughly dried out, and the fire department nearly always got fires under control before they damaged more than two or three buildings.

The public appreciated some of these conditions, too, and that was one reason, if not the main one, why business men took so many chances by securing only light insurance to value.

WORK OF REBUILDING IS BEGUN.

It was before the fire had died down and before the insurance companies began to pay losses that the victims, their spirit unbroken, laid their plans for a greater, a more beautiful San Francisco.

Before a week, with its heartaches, its horrors and its business shocks, had



gone by, architects were at work in 'Frisco and in other cities, making plans for the restoration of the city on a grander scale than ever before.

The rebuilding of San Francisco was the speediest and most wonderful piece of work that the world ever saw, not alone because of the high courage and dauntless spirit that animated the forty-niners and their descendants, but because the facilities were greater than ever before in the history of the world.

The great requisites for rebuilding are obviously money, men and material.

San Francisco's material loss was nearly \$500,000,000, but while thousands were homeless and houseless, and hundreds of thousands lost their all, there remained of the people of San Francisco thousands who, having lost much, had much more to lose. To a man and woman they ventured their all in the rebuilding of the city.

STURDY SPIRIT REIGNS.

Nearly all of the great San Francisco mercantile houses were in the hands of old San Francisco families.

Miller, Sloss & Scott, the great hardware firm, is practically owned by the Sloss family that won fame and fortune in Alaskan fisheries, the fur seal concession on the Prybaloff Islands, and later in the Klondike.

All of the members of that family have considerable investments outside of San Francisco. There was no question about Miller, Sloss & Scott resuming. They placed the order for steel for a new building before the ruins had cooled.

In the dry goods line such firms as Levi, Straus & Co., Murphy, Grant & Co., Weil, Michaels & Co., Greenebaum, Feigenbaum, Sachs, Fehelmer, and hundreds of others in the Sansome street district were all extremely wealthy outside their business and were known to have outside investments.

The great provision houses nearly all owned the buildings in which they did business, and men like Haas Bros., Van Sicklen, Schilling & McCarthy had ample means on which to begin anew.

Among the bankers of the city there were no weak ones.

As soon as the first necessary relief was brought into the city the work of clearing the debris was begun.

NATIVES GIVEN PREFERENCE.

In allotting work preference, of course, was given to old San Franciscans. No country in the world has a higher percentage of skilled labor than San Francisco.

As things became straightened out skilled mechanics were invited in from other places. It was the most marvelous transformation scene upon which the world has ever gazed.

The modeling of the new San Francisco was placed largely in the hands of Daniel H. Burnham, originator of the "Burnham plan" for the improvement and adornment of the city of the Golden Gate.

Instead of adornment and improvement, however, the problem was one of complete reconstruction.

In the eyes of the architect and the designer of cities the calamity had been mixed with benefit. A clear field for work along modern lines had been left by the earthquake.

Existing obstacles to the execution of bold plans had been swept away. The alert, far-sighted men who banded together January, 1904, in San Francisco under the name of the Improvement and Adornment Society at once began dreaming of a city to rival the magnificence of Paris as they watched the smoke rising from what, a few days before, were homes and skyscrapers.

PARIS THE MODEL OF THE CITY.

Aside from the obstacle of the effect on the popular mind, the originators of the "Burnham plan" could see nothing in the way of going ahead and carrying out arbitrary plans for remodeling the plan of the city and its environs.

The plans for building the new city were outlined as follows:

The boulevard system of Paris was to be taken as a general model. A great encircling boulevard, giving access to all centers of the city without the necessity of passing through the congested districts, was the main feature of the plan.

San Francisco is built on a peninsula, with water on three sides. It was planned to make the engirdling boulevard a broad, dignified, and continuous driveway, skirting the water's edge.

Within this ring it was planned to have a number of smaller concentric rings, separated by boulevards.

The smallest of these rings, inclosing the civic center—that part of the city which plays the most important part in civic life—was located at or near the geographical center.

BOULEVARDS CROSS THE CITY.

From the inner circuit boulevard diagonal arteries run to every section of the city and to the surrounding country.

They traverse in succession the diminishing circuit boulevards and finally reach the center or group of centers, thus forming continuous streets reaching from one side of the city to the other.

In a city as large as San Francisco no one central place is adequate for the grouping of all the public buildings. Therefore it was necessary to locate sub-centers at intersections of the radial streets with the concentric boulevards.

At each of these intersections there is a public "place."

Plans were made for another group of buildings, public or private, of monumental character and of great civic interest relating to matters literary, musical, expository, professional and religious.

Some of these are the library, opera house, concert hall, municipal theater, academy of art, technical and industrial school, museum of art, museum of natural history, academy of music, exhibition hall, and assembly hall.

It was planned that these buildings, placed in economic relation, should face on the avenue forming the perimeter of distribution, and on the radial arteries within, particularly on public places formed by their intersections.

The plans included extensive settings on all sides, contributing to public rest and recreation, and adapted to fetes, celebrations, etc. It was considered that by being removed from the rush of business activity these buildings gained in repose and strengthened the public's sensibility of the dignity and responsibility of citizenship.

GREAT RAILWAY STATION.

On the chief radial line to this place is placed the union railway station, forming a vestibule to the heart of the city. Theaters and other places of amusement are grouped on one large street near the center, with plenty of room for vehicles coming and going.

The water front and available level ground govern the location and growth of the working portion of a maritime city. The docks, wharves, and freight houses naturally group on the water front.

The originators of the plan intended that the water front district should be so arranged as to admit of indefinite expansion and connected with a complete system of warehouses—served on one hand by railroad tracks or canals and on the other by broad roadways.

It was planned to have the warehouse system so schemed as to connect as directly as possible with the wholesale trade districts and the manufacturing quarter.

The retail quarter follows within easy reach. This district follows in general, in its growth, the residential districts which it serves, limited by the steeper grades of the contours.

The ten miles of water front possessed by San Francisco, it was declared by architects, was inadequate to the needs of the future.

Although there was nothing to check its expansion down the eastern bay shore, the value of the frontage decreased in ratio to the distance of its removal from the center of the city.

It was therefore considered necessary to develop as much as possible of the water front extending from the ferries to Hunter's point. A system of docks, inclosed by a sea wall, is used to triple, or even quadruple the extent of the wharfage.

Where the outer boulevards follow the sea wall it was necessary to connect it with that section of the city lying near it and inhabited by the middle classes.

Where the streets from this section intersect the great boulevard, there are piers for public recreation, a yacht and boat harbor, and vast bathing beaches, both inclosed and open air. The outer boulevard arranged for this without interfering with provisions made for shipping.

RAPID UNDERGROUND TRANSIT.

Rapid underground transit and a traffic tunnel through Ashbury Heights were other features of the plan.

It was proposed that the main diagonal arteries of the city should be pro-



Camping in Golden Gate Park After the Earthquake.

vided with underground transportation and that underground loops should be excavated under the centers.

The plan included the construction of at least two underground roads at right angles.

Where steep grades and contour roadways extending around hills were encountered the subway was built as a gallery below the roadway, opening to the view, or the car line built on the slope slightly below the roadway.

The financial center comprises banks, exchanges, insurance buildings, and general office structures.

It was planned to have it easily accessible from the wholesale and retail quarters and also from the administrative center.

In the form of a court it is fronted with the most frequented and important institutions. The new city was so planned as to make it one of the easiest cities in the world "to get around in."

The park systems, the adornment of the streets by the planting of trees, the uniform height of buildings on specified streets, the putting up of statues and works of art in public places, the prevention of smoke, and the substitution of chains of park squares for unusued back yards—all these things entered into the plans that were made for the rebuilding of San Francisco.

It was planned to make the park chains beautiful examples of the art of the landscape gardener where people might walk with comfort and where children could play free from danger of traffic.

CIVIC BUILDINGS FACE COMMONS.

It had been suggested that cities like Colma, Ocean View and Baden, which have become borough centers, reserve large commons on which the civic buildings may face. There are many steep hills in San Francisco. In some places the streets were laid out at right angles with apparent disregard for the configuration of the landscape.

In the Burnham plan it was suggested that each hill, or succession of hills, be circumscribed at its base with a circuit road. These circuits were to be repeated at various heights and connected by easy inclines. Places of interest were to be emphasized by terraces with approaches.

It was recommended that an art commission be given charge of all matters especially pertaining to civic art.

CHAPTER XXI.

VESUVIUS!

Beginning of Latest Eruption—Refugees Flock to Naples—Cardinal Furnishes Peasants Food—Scientist's Bravery in Face of Almost Certain Death—Naples Shaken to Foundations—Angry Women Mob a Church—Think King Effected Miracle—Faced Death from Famine—Likened to Dante's Inferno—Search Ruins for the Dead—Scenes of Beauty Around Vesuvius—Previous Disasters Due to Vesuvius—Eruptions Gain in Frequency.

And the stars of heaven fell unto the earth, even as a fig tree casteth her untimely figs, when she is shaken of a mighty wind.—Rev. 6: 13.

All the world was shuddering over the horrors, the death and devastation caused by the eruption of Mount Vesuvius in Italy when the earthquake smote San Francisco. At the moment of the earthquake Vesuvius' terrible April eruption of 1906 was practically over, but the craters were still smoking and the 1,000,000 people around the base of the volcano were yet in a panic-stricken state, thousands of them homeless, hungry and penniless. Americans and others throughout the world were raising funds for the relief of the sufferers. The Vesuvian situation at that time appeared as follows:

NAPLES, nine miles from the summit of Vesuvius, crowded with 150,000 refugees; city covered with several inches of ashes; people in panic, but city in no danger so far. Many buildings, however, had fallen or their roofs collapsed, hundreds of persons being killed outright and many more injured.

TORRE DEL GRECO, seven miles from Naples, 25,000 population; half buried in ashes; roofs of many houses fallen in; many buildings collapsed; deserted.

BOSCOTRECASE, twelve miles from Naples; 9,000 inhabitants; destroyed by lava; people escaped.

TORRE ANNUNZIATA, twelve miles from Naples, 32,000 people; lava flow checked after destruction of suburbs; only 2,000 people in town, others fled to Naples.

POMPEII, thirteen miles from Naples; cemetery and few villagers' homes destroyed; lava flow checked; famous ruins untouched.

OTTAJANO, thirteen miles east of Naples on northeast slope of Vesuvius; 20,000 people; town covered with four feet of ashes and cinders; ten houses, five churches collapsed; 300 persons killed; unknown number injured; prison and barracks destroyed; town deserted.

SAN GUISEPPE, twelve miles from Naples, 6,000 people; practically destroyed by ashes; church collapsed; sixty persons injured.

PORTICI, four miles from Naples, 9,000 people; partly destroyed; deserted.

CASERTA, five miles north of Naples, 35,000 people; menaced by lava streams.

NOLA, twenty-two miles from Naples, 15,000 people; buried under showers of ashes.

SAN GIORGIO, four miles from Naples, half buried under sand and ashes.

Altogether about 3,000 people had perished, 300 square miles laid waste and \$200,000,000 damage done.

BEGINNING OF LATEST ERUPTION.

Mount Vesuvius first began to show symptoms of a violent eruption in 1906 on April 5. Almost always smoking, red flames shot out of the crater and formed a halo on the clouds that alarmed Italians for miles around. Then came a succession of earthquake shocks, followed by the emission of lava and great volleys of shattered rock from the volcano.

Boscotrecase, on the southern slope of Vesuvius, nearest the crater, was abandoned, the people seeking safety in flight. The cemetery was invaded by a stream of molten lava.

On the Pompeian side of the mountain the main stream of lava divided into two the following day, one threatening Ottobiano, and the other threatening Torre del Greco. The latter city had already been destroyed by lava eight times in its history and the residents fled at the first approach of the new lava streams.

PRAY TO AVERT DISASTER.

Bosco Reale, to the eastward, was also threatened. Women of this village, weeping with fright, carried a statue of St. Anne as near as they could go to the flowing lava, imploring a miracle to staying the advance of the consuming stream.

The churches were crowded day and night with people praying for deliverance from an impending peril, manifestations of which were heard and felt in explosions, which resembled a heavy cannonading, and in the tremblings of the earth, which were constantly recurring.

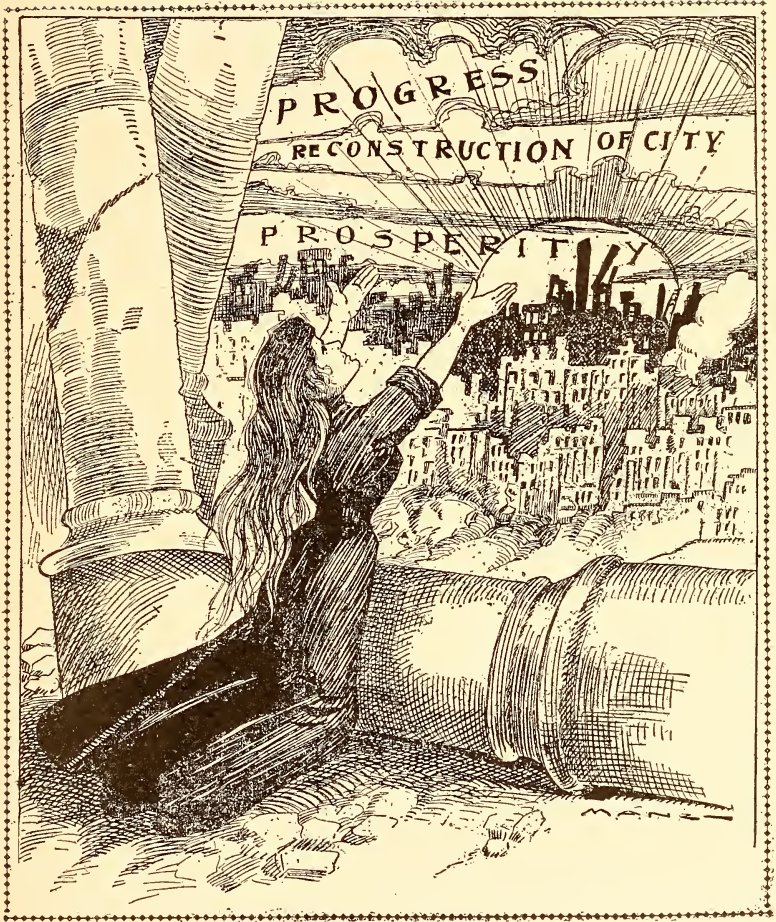
The main stream of lava proceeding from Vesuvius was 200 feet wide, and it advanced at times at the rate of twenty-one feet a minute, the intense heat destroying vegetation before the stream reached it.

A new crater was burst through the mountain side. This was twenty feet in circumference, apparently, and from it the lava flow within two days extended down and out on the plain two miles and a half. Hot mud, ashes and black sand were also ejected, which, mixed with rain, produced the so-called caustic rain which is most damaging to vegetation.

COLUMN OF FIRE 1,000 FEET HIGH.

The scene at night was one of mingled grandeur and horror, as from the summit of Vesuvius there leaped a column of fire fully a thousand feet in height, the glare lighting the sky and sea for many miles. Occasionally great masses of molten stone, some weighing as much as a ton, were ejected from the crater.

April 7 the eruption from Vesuvius increased in violence hourly. New craters opened, some opposite Naples. Great quantities of ashes and fine sand



then began falling in Naples. The mountain was enveloped in a dense mist and emitting, besides lava, huge blocks of rock. The upper part of the Funicular railway had been destroyed.

The whole mountain shook from constantly repeating shocks of earthquake. Each shock was accompanied by deep and prolonged detonations, and as they increased in number they grew in severity.

The lava floods descended from the craters at the summit of the volcano in a great fanlike wave, the entire rim of the fan having a radius of twenty miles and including four-sevenths of the entire circumference of the base of the volcano.

GOVERNMENT HELPED PEOPLE FLEE.

By this time the town of Boscotrecase was surrounded by lava, and streams of molten rock were flowing through the town itself. Most of the 9,000 inhabitants had fled. Those who did not escape earlier were vainly trying to find vehicles with which to carry away their goods and household belongings. The government was sending artillery horses and carts to assist in the transfer of the people.

The town of Torre Annunziata, the first north of the ruins of Pompeii, was now threatened with destruction. The rivers of lava coming from the direction of Boscotrecase destroyed eighty peasant cottages. The people began to desert the town. Extra trains were kept running on the electric road between Naples and Torre Annunziata all night in order to carry away the people.

It was noted that a stream of lava had not reached Torre Annunziata since the great eruption of 1834. In fact, not for centuries had a lava flood flowed in that direction.

Another stream of lava was threatening to destroy Torre del Greco, the first station on the railroad southeast of Herculaneum. The town was abandoned, the people hurriedly removing their goods and household effects.

The village of Portici, three miles above Torre del Greco, was threatened and a similar panic existed there.

The village of Ottajano, on the opposite side of the mountain, was in danger from streams of lava flowing from the old crater.

The populations of the other towns and villages near the danger zone were also panic stricken. Whole families, surrounded by their household goods, waited long in the streets, hoping to find a cart, horse, or donkey to help them place their possessions beyond danger.

REFUGEES ALL FLOCKED TO NAPLES.

The refugees from all the villages on the slopes of the mountain flocked into Naples by thousands, on foot, and in vehicles of every description. All the roads from Vesuvius were crowded with carbineers, stationed at intervals along the way to direct the people fleeing from danger, and to warn them where to avoid dangerous points.

Under direction of the duke of Aosta, Governor of Naples, engineers and soldiers erected parapets and dug ditches in order to divert the course of the lava streams.

The duke even worked with the pick and shovel himself, in order to set an example and to urge his men to greater effort.

Meantime Vesuvius itself was a colossal brazier. Torrents of liquid fire, resembling in the distance serpents with glittering yellow and black scales, were coursing in all directions, amid rumblings, detonations, and earth tremblings, while a pall of sulphurous smoke, that hovered over all, made breathing difficult.

The streams of lava were resistless. They snapped like pipe stems the trunks of chestnut and pine trees hundreds of years old, and blighted with their torrid breath the blooms on the peach and apricot trees before the trees themselves had been reached. The molten streams did not spare the homes of the peasants, and when these had been razed they dashed into the wells, and, having filled them, continued their course down the mountain side.

CARDINAL OFFERED PEASANTS FOOD.

Cardinal Joseph Prisco, archbishop of Naples, ordered special prayers offered for the safety of all who were in danger. Boscoe Reale, one of the villages in danger of destruction, is the birthplace of the cardinal and the home of most of his relatives.

The cardinal distributed necessities of life to the peasants and even went so far as to give away the rings he wore on his fingers. Repeatedly he exclaimed to the frightened peasants: "Pray, my children; you may be sure God will not desert you."

The statue of St. Anne, which was taken to the mountainside to confront the lava, was frequently moved backward as the tide advanced.

KING'S VISIT TO SCENE OF RUIN.

April 8 King Victor Emmanuel, who was born at Naples and was touched to the heart by the affliction of his countrymen, left Rome with Queen Helena for the scenes of misery, determined to lend his personal assistance and the cheer of his presence to the sufferers. Before departing from Rome he ordered Italy's whole Mediterranean fleet to Naples to take orders from the Duke of Aosta and assist in embarking refugees at the coast towns. The Italian minister of finance and many other high officials also hurried to the stricken villages.

Vesuvius continued to become more destructive. The eruptions, which increased with frightful violence, threatened to destroy the entire coast from Portici to Pompeii.

Pompeii, buried under ashes 1,823 years ago, was threatened with engulfment by lava. A great molten flood, 600 feet wide and 21 feet deep, after sweeping over the town of Torre Annunziata, approached the ruins of Pompeii at a

rapid rate. The cemetery and some houses northwest of the town were destroyed.

Countless new craters emitted a molten flood simultaneously, and the attendant earthquake shocks caused the panic to spread to Naples. Villages were blotted out.

Breathing momentarily became difficult in Naples, because of the poisonous fumes and smoke, while the dense shower of hot ashes added to the horror.

SCIENTIST'S BRAVERY ON VESUVIUS.

All this time a brave scientist, Dr. Matteuchi, director of the Royal Observatory on Mount Vesuvius, sat at his post with an American, Prof. Frank A. Perret, of New York, as his assistant, both men intently studying the phenomena and attempting to ascertain, for the sake of the people, whether there was likely to be a cessation of the death-dealing eruption. His telegraph line had been destroyed, but he mended it at the risk of his life and dispatched to Naples this message:

"The eruption of Vesuvius has assumed extraordinary proportions. Yesterday and last night the activity of the crater was terrific and ever increasing. The neighborhood of the observatory is completely covered with lava. Incandescent rocks thrown by the thousand to a height of 2,400 and even 3,000 feet, fell back, forming a large cone. Another stream of lava has appeared from a fissure, the position of which is not well defined.

"The noise of explosions and rocks striking together is deafening. The ground is shaken by strong and continuous seismic movements."

The situation everywhere grew worse. Ashes were falling over a large part of southern Italy, even the east coast. Two strong earthquake shocks, which shattered windows and cracked the walls of the buildings in Naples, were experienced. A church filled with people collapsed, and thirty were killed and 200 injured. The entire population rushed to the streets, many persons crying, "The Madonna has forsaken us; the end of the world has come." No trace remained of Boscotrecase.

The atmosphere everywhere about Vesuvius was heavily charged with electricity, and now and then the flashes of lightning were blinding, while the detonations from the volcano resembled those of terrible explosions.

HORRORS OF THE PEOPLE'S FLIGHT.

At this stage of the eruption a daring tourist who visited the districts of Boscotrecase and Torre Annunziata described what he saw as follows:

"Along the road I met hundreds of families in flight, carrying a few miserable possessions. The spectacle of collapsed carts and fainting women was frequent. When one reached the lava streams a stupefying spectacle presented itself. From a point on the mountain between two towns I watched four rivers of molten fire, one of which was 200 feet wide and over



People Seeking Shelter on the Outskirts of San Francisco as the Fire Raged.

40 feet deep, moving slowly and majestically onward, devouring vineyards and olive groves. I witnessed the destruction of a farmhouse, which was enveloped on three sides by lava.

"Immediately overhead the great crater was belching incandescent rocks and scorize for an incredible distance. The whole summit was wreathed in flames and a perpetual roar was heard. Ever and anon the cone of the volcano was encircled with vivid electric phenomena, amid which the down-pour of liquid fire on all sides of the crater was revealed.

"In the evening there was a frightful shock of earthquake, which was repeated. Simultaneously lava streams were redoubled and there was a rush of men, women, and children as they fled precipitately towards the sea. The lava had invaded the road behind them."

VEGETATION SHRIVELED AND BURNED.

Another tourist, who went to the scenes of devastation earlier, gave this account of his perilous trip:

"As nothing could be seen from Naples owing to the dense, black pall of sand, half of Naples hurried to the threatened town by railway, electric tramway, motor car, and country cart. It was difficult enough to obtain a ticket and infinitely more difficult to obtain a seat in trains, although the service had been trebled.

"As far as the picturesque town of Portici the country lay desolate under a shroud of sand. Not a blossom could be seen on the withered trees and not a scrap of fodder on the ground for the cattle. Along the railway the people of the towns through which it passed stood watching with mournful surprise the procession of crowded trains.

"When we reached Boscotrecase at 4 p. m. we found only two or three houses outside of town had yet been destroyed, although with them vast tracts of vineyards had been devastated. The upper houses in the town which stand on the slopes of the volcano had been deserted, but the inhabitants were returning, as the stream of lava which had threatened them had ceased to advance. The second stream, however, was moving forward, but was not dangerous. This second stream surrounded and destroyed a cottage, but strangely enough a majestic pine tree stood unhurt in its midst. Elsewhere as the stream flowed slowly onwards three trees in its course shriveled up and burst into flames."

The same tourist afterward described the effect of the second stream of lava. "Running like water," he said, "the revived stream reached the western end of town and in ten minutes destroyed twenty or thirty houses. The inhabitants fled from their beds. The two streams later united between Boscotrecase and Torre Annunziata. Their width was at least 3,000 feet, and their depth 10. After destroying the watchman's house the lava crossed the railway, which runs round the base of Vesuvius, covering it for a width of 250 feet and wrecking trolley posts, wires and telephone posts."

VOLCANO ABATED, THEN GREW WORSE.

April 9 was but a repetition of the day before, until late in the afternoon, when Vesuvius' wrath seemed to be appeased. The rain of rock ceased, the lava tide stopped and the people began to hope the eruption was over. This, however, was not the case. With redoubled fury the volcano began belching out its fiery flood before dawn of April 10. At 2 a. m. the mountain was shaken by terrific explosions that were felt plainly in Naples. When daylight came and the cloud above the mountain partly cleared it was discovered that the outline of Vesuvius was strangely altered. The whole cone of the mountain had been blown away. It was estimated that the summit was 600 feet lower than before the eruption began.

Prof. Di Lorenzo, the specialist in the study of volcanoes, estimated that the smoke from Vesuvius reached the height of 25,000 feet. It was said, too, that the ashes in places at Ottajano were 150 feet deep. The entire town was buried under ashes and cinders to a depth of four feet. The prison and the army barracks had been destroyed. Five churches and ten houses had fallen under the weight of ashes and cinders. The village was completely deserted by its people.

San Giorgio and Torre del Greco were half buried in ashes and sand and the roofs of many houses had fallen in or were collapsing.

The most of the buildings in the villages were of flimsy construction and had flat roofs, and so were but poorly calculated to bear the weight of ashes and cinders that fell on them.

500,000 PEOPLE HOMELESS.

By this time fully 500,000 persons were homeless and destitute of clothes and provisions. At least 150,000 of these refugees had flocked into the already crowded city of Naples. The others were camping in the roads and fields without shelter, nearly blinded by ashes, wet to the skin by the rain, and terrorized by the constant explosions of the volcano over their heads and the shocks of earthquake beneath their feet.

The refugees poured into Naples in every kind of conveyance and on foot. The roads were crowded with processions of men and women carrying crosses and crying piteously. All the trains were carrying the fugitives without charge and were crowded to the limit. Thousands of soldiers, with artillery carts, ammunition wagons, and ambulances were assisting the evacuation.

ANGRY WOMEN MOBBED A CHURCH.

At many places the people were suffering from panic, and a state of great confusion existed, which was added to by superstition. Some of the parish priests refused to open their churches to people who tried to obtain admittance, fearing that an earthquake would destroy the buildings when full of people, and thus increase the list of disasters. Crowds of women thereupon attacked the

churches, pulled down the doors, and took possession of the pictures and statues of the saints, which they carried about as a protection against death.

Special railway trains, warships, and steamers were employed in conveying the homeless people to Naples, Rome, and Castellammare, while large numbers of people fled overland in the direction of Caserta.

Not less than 15,000 refugees reached Castellammare, where the steamer Princess Mafalda was anchored. This vessel left the island of Capri with 1,000 passengers, including many foreigners, on board, but was unable to reach its destination owing to the stifling clouds of ashes and the fumes of gases from the volcano, which enveloped the ship a mile from the coast.

ASK KING TO STAY VOLCANO.

King Victor Emmanuel and Queen Helena reached Naples April 9 and immediately set out for the destroyed towns, the king saying: "If Torre Annunziata is in danger it is my duty to be there."

The Duke and Duchess of Aosta and the Princess of Schleswig-Holstein, who was a guest of the Duke and Duchess of Aosta, joined the king and queen in their visit to the afflicted districts. The royal party went first to Torre Annunziata and the king everywhere along the way was received with the most touching manifestations of gratitude, amidst cheers and weeping, expressions of thanks, and frantic gasticulations of joy. The king forbade the police and carbineers to keep the people away from him, so that all could approach him. The women kissed the king's hand and the queen's gown, exclaiming, "God sent you to us." One of the women, addressing the king, cried:

"If thou art our king, order the volcano to stop!"

THINK KING EFFECTED MIRACLE.

The people of Torre Annunziata were tremendously excited, women especially being in a state of panic. Then the rumor was started to the effect that the visit of the king had resulted in a miracle. Singularly enough, shortly after the arrival of the sovereigns, and while the king and queen were trying to console the people, repeating frequently, "Courage! Be strong," the wind suddenly changed and the atmosphere, which up to that moment had been impregnated with sulphurous gas and suffocating fumes, cleared away and the sun burst forth, the stream of lava stopped its march, after having destroyed a section of the northeast part of the suburb and the adjacent cemetery.

The air rang with benedictions for the king. Hope at once returned and the king and queen were preparing to move on, but the people insisted that they remain, begging that they be not abandoned, but the king wished to visit other distressed villages, and so returned to Naples, whence he set out in an automobile for a tour of the devastated districts.

The king and queen visited Santa Anastasia, Cercola, Somma and Vesuciana, arousing the same enthusiasm among the people as when they first reached the scene of the disaster.



KING FORCED TO WADE IN ASHES.

At a certain point the king and his suite, who occupied several automobiles, were struck by a small cyclone of ashes and cinders, which partly blinded, choked and stopped them.

As the king's motor car was the first and was some distance ahead of the cars in which the members of his suite were riding, it was lost sight of for some time in the clouds of whirling ashes, and considerable anxiety was felt for his majesty's safety, but it was seen presently that the king had ordered his automobile to be driven at full speed ahead, and so crossed the path of the cyclone with great rapidity.

A short distance further on, however, the ashes were four feet deep, making it impossible for the royal party to continue their route in the motor cars. Consequently the king and his suite descended and continued their way on foot until conveyances could be obtained to take them back to Naples.

SPREAD DISASTER IN NAPLES.

When Vesuvius became most violent April 10, the rain of sand and ashes threatened to bury Naples itself, with its population of 500,000 and its 150,000 refugees. It was feared that the weight of ashes on roofs would cause the collapse of many more buildings both in Naples and in the towns and villages nearer the volcano.

In Naples that day the terror of the residents and the refugees who thronged the streets was turned into frenzy by a disaster which cost at least a dozen lives and through which scores were injured. At a moment when citizens, lulled into hopefulness by a distinct lessening of the eruption, were giving praise in churches and street processions, a roof thrown over Mount Oliveto market to ward off the rain of ashes collapsed, burying more than 200 persons. The throng in the market consisted chiefly of women and children, and the scenes following the collapse were pitiful.

Twelve persons were killed outright, two were fatally and twenty-four dangerously hurt. More than a hundred others were more or less seriously injured.

FELL ON HOLIDAY CROWD.

The market place, covering 600 square feet and surrounded by stalls, had temporarily been roofed to protect the shoppers from the falling ashes. The space within was unusually crowded with buyers and their children, the accident happening at the hour of the day when trade is most brisk.

Little children played about the stands, adding gayety to a scene the like of which is not to be witnessed outside of Naples. Suddenly, with scarcely a tremor of warning, there was a terrifying crash, and the brilliant sights disappeared in a cloud of dust, while shrieks of agony rent the air.

At the moment of the disaster religious processions were passing through the streets of the city, the people desiring to render thanks to the

Almighty for having apparently averted much greater disasters than those hitherto recorded. Here and there these processions wended their way with images of the Madonna or saints dressed in most gorgeous robes of cheap blue or yellow satin, borne above seas of dark heads, mostly those of women.

FACED DEATH FROM FAMINE.

April 11 Vesuvius reached the climax of the eruption. Ashes fell on Naples to a depth of four inches. That night the city was plunged in utter darkness. The Neapolitans were in a state of frenzied panic. During the day manufactories and shops were shut down and cafes, theaters, and all places of amusement closed. The crowds were in a mood for any excess. There had been threatening demonstrations. The city, consequently, was divided into four districts, each commanded by a general. Troops under arms were held at all the principal squares.

To the horrors of the devastation wrought by the volcano was added the menace of famine. There were nearly 200,000 refugees in Naples. Thousands were arriving daily to swell the numbers in the already overcrowded city.

The problem of housing and feeding 200,000 refugees was the gravest feature of the situation. The distress was appalling.

OPENS PALACES TO THE HOMELESS.

Relief work on a gigantic scale was necessary. King Victor Emmanuel returned to Naples and, with Premier Sonnino, assumed personal direction of the relief work. The king at once ordered the royal palaces of San Ferdinando and Cappodimonte thrown open to the homeless and wounded refugees.

In the midst of that desperate situation Prof. Matteucci wired the duke of Aosta from the royal observatory:

"The situation of myself and the carabinieri in the observatory was grave throughout the night. Up to 8 o'clock this morning the observatory was enveloped in dense showers of sand, but the volcano is now calmer. The seismic instruments show quieter records than yesterday.

"If my words could influence the population they would be words of encouragement and sympathy, for I am most confident that Vesuvius will soon return to its normal conditions."

Yet, in spite of these reassuring conditions, the situation was alarming enough to excite keen apprehension. From all quarters came reports of the accumulation of ashes, the flight of the terror stricken inhabitants of towns and villages, the collapse of buildings, the insufficiency of the relief measures, hunger, and discouragement. It was no longer possible to reach the points which had suffered most severely. Even the soldiers detailed to guard the ruins at Ottajano had been recalled and the town had been left to

its fate. Its houses continued to fall and the villages in its neighborhood were nothing but ruins. Prisoners in jails on the mountain side went mad with terror and mutinied.

So widespread was the catastrophe that it was estimated it would require an organized body of 100,000 men and the expenditure of many millions of dollars to raze houses made unsafe for habitation by the accumulation of ashes and cinders on the roofs, erect temporary huts of refuge for the thousands who had fled from their homes, clear the roofs of buildings that might yet be saved, and extricate from the ruins of fallen structures and bury the dead.

LIKENED TO DANTE'S INFERNO.

An explorer who visited the towns around the base of Vesuvius that day described his experiences thus:

"I took a train for Torre Annunziata. On arriving at Torre del Greco the heavens seemed to open and we were soon half buried in ashes and hot cinders. The train drew up in total darkness, relieved only by lightning flashes. Thus we waited events. Soon the darkness took purple and yellow tinges, the detonations became louder than the loudest thunder clap, and the ashes burned our eyes.

"It was a perfect picture of Dante's inferno. The train could not proceed, so thick were the ashes on the track, and just at this point the train broke in half, and the poor women fugitives, thinking they were about to lose their lives, began to chant litanies for the dead, giving a last weird touch to the infernal scene.

"Carbineers came to our rescue and proposed to take us to the sea. We then found we were on a bridge, with the sea on one side and Torre Del Greco on the other hand. In the darkness we descended, hand in hand, forming a human rope, and a false step would have meant death. The port was so choked with ashes that small boats could not navigate.

"Wearily we trudged back to the station, to find there was no prospect of another train. We had then been five hours in that plight; so, seeing that heroic measures were necessary, with a companion, I trudged miles in two or three feet of ashes to Portici, where finally we found a cab which brought us to Naples.

"Since the Chicago fire I have seen nothing so terribly impressive. Twenty years will not repair the damage, including the destruction of four whole villages."

KING REBUKED PRIEST WHO FLED.

April 12 was another black day. The wind blew clouds of ashes and immense volumes of gas from the craters directly down into Naples. The people could scarcely breathe. Asphyxiation stared in the face every one of the 650,000 people there. But in this perilous situation King Victor Emmanuel resolved again to visit Ottajano. He started for the town. At a certain point his majesty was obliged to abandon his motor car, and went forward on horseback,



One of the Thousands of Homes Destroyed in San Francisco.

amid constant danger, his horse floundering through four feet of ashes, stumbling into holes, blinded by the fall of large cinders, and the target for falling basaltic masses.

In the presence of the king 129 bodies were extricated from the ruins of Ottajano, while ashes and red sand were falling as if they were determined not to relinquish their victims. The king was deathly pale.

To a priest who came to him, he said: "How did you escape?"

"I placed myself in safety," replied the priest.

"What do you mean?" asked the king.

"Realizing the danger," was the priest's reply, "I had left for Nola."

The king flushed with anger. "What!" he cried, "you, a minister of God, were not here to share the danger of your people and administer the last sacraments! You did wrong."

The king made a tour of a large part of the desolated district, visiting the camp hospitals to console and cheer the injured.

SUBSIDES AFTER BURST OF FURY.

The following day the eruption appeared to be at an end. Prof. Matteucci wired the governor of Naples cause for hope.

"The activity of Vesuvius and the agitation of the surface of the volcano have sensibly diminished," he telegraphed. "Electric discharges have ceased and the discharge is less abundant. From the presumed formation of the crater and other indications, and if the news coming to me is true of the cessation of lava at Boscotrecase, I predict, with reserve, that in two or three days volcanic calm will reign."

Another day of calm passed. Then, at 4 a. m., April 15, Vesuvius belched out tremendous torrents of fire. But this madness of the monster was of short duration. In the afternoon the volcano became quiet and within two days more was in repose.

300 SQUARE MILES DESOLATE.

It was then possible to ascertain the extent of the damage. It was found that 300 square miles of fertile lands, formerly covered with farms, gardens, vineyards, had been overwhelmed by masses of lava, sand, cinders and ashes.

This strip of territory, ten miles wide and thirty miles long, ten days ago was a garden of rare beauty and fertility. It contained a score of villages and thousands of happy, peaceful rural homes. Now it was blotted out. It was a wilderness, as dreary as any in the desolate lands of Sahara. In all this waste there was no sign of life or vegetation. The people had abandoned it.

SEARCH RUINS FOR THE DEAD.

Soldiers and thousands of others began searching the ruins and digging out the dead. At some points the ashes were ten feet deep, reaching to the windows of the second stories of the few hovels still standing. At other spots the ashes

were 150 feet. Hundreds of dead were uncovered and given Christian burial. Hundreds of others probably were never found.

The scene at Ottajano when the first victims were unearthed there was most terrible. The positions of the bodies showed that the victims had died while in a state of great terror, the faces being convulsed with fear. Three bodies were found in a confessional of one of the fallen churches. Other bodies which were found later caused such an impression among the already frantic population that the authorities did not deem it advisable to permit any more bodies to be identified for the present. Entire families perished in the town and terrible scenes occurred when refugees returned in search of missing relatives whose bodies are unrecognizable.

OLD WOMEN ALIVE IN RUINS.

A sensational development occurred during the work of salvage at Ottajano when the searchers unearthed two aged women, still alive, but speechless, after six days' entombment. They were among the hundreds who were crushed beneath the falling walls during the rain of stones and ashes on Sunday and Monday. Hope had been abandoned of finding any of these persons alive. The women were protected by the rafters of the house which they were in and had managed to exist on a few morsels of food which they had in their pockets.

Money for the relief of the sufferers poured in by large sums. The king gave \$20,000, the Duchess of Aosta \$5,000, the government \$20,000, the municipality and Bank of Naples each \$20,000; the municipality of Milan, \$10,000; the municipality of Rome, \$4,000, and the cities of Florence, Genoa, Bologna, Palermo, and Turin, \$2,000 each. The Banco Commerciale di Milona gave \$6,000.

In America many cities, notably New York and Chicago, contributed large sums to relieve the sufferers.

SCENES OF BEAUTY AROUND VESUVIUS.

In order to understand the situation when the eruption began, a knowledge of the country around Vesuvius is necessary. Naples and its bay are noted as being second only to Constantinople in natural beauty. A road twenty miles long, commencing at Naples, extends southeastwardly along the shore of the bay and then, winding inland, completely encircles the mountain. This is dotted with villages, all within hearing of the volcanic rumblings and bellows of Vesuvius.

Four miles down the bay road from Naples lay Portici, its population dwelling peacefully on lava thrown down to the sea by the eruption of 1631. On this black bed stands the royal palace, built by Charles III., in 1738. Resina, one mile farther, is the favorite suburban seat of wealthy Neapolitans. Its 14,000 residents dwell partly on the ruins of Herculaneum and of Retina, to which latter city Pliny the elder set out during the great eruption which destroyed these cities and Pompeii.

Sixteen times has the burning mountain overwhelmed Torre del Greco, two and a half miles farther on; yet within four and a half miles from its destroyer

the seventeenth town flourishes with 25,000 population. This little city has been the sorest sufferer from Vesuvius, each lava flood drying and forming the rocky foundation for new edifices. There is a saying among the Neapolitans, "Naples commits sins and Torre pays for them."

After the eruption of 1861 an earthquake fissure in the streets of this ill-fated town was descended by men who found themselves inside a church buried by the products of a previous eruption. Torre del Greco is the center of the Mediterranean coral fishery and is surrounded by rich vineyards as well as fruit orchards. From its grapes some of the choicest wines of Italy are made, notably the Lachrymæ Christi.

BURIAL OF POMPEII AND OTHER DISASTERS BY VESUVIUS.

Previous to the year A. D. 63, Vesuvius was not recognized by the Greeks and Romans as an active volcano. At that time the summit was a large crater, for centuries regarded as totally extinct. The first warning of renewed eruption within historic times was the earthquake of 63. Moderate earthquakes followed at intervals until the disturbance culminated in the great catastrophe of 79, destroying not only Pompeii and Herculaneum, but Stabiae, Retina, and Oplontum.

Pompeii was situated on the shore of the bay of Naples, within a short distance of the foot of Mount Vesuvius. At the time of its burial it was a town of Campania. As a town of the living it had no great reputation except as a resort for Roman nobles and comparatively little is known of it, but as the most remarkable relic of antiquity in existence its fame now is world wide.

The wonders of this ancient city and the horror of its destruction have made appeal to hundreds of thousands of English speaking people through Bulwer Lytton's splendid romance, "The Last Days of Pompeii."

TRAGIC HISTORY OF POMPEII.

Pompeii, like most of the cities in the beautiful country of that region, had a mixed population. A seaport town, it was cosmopolitan to a degree. Its origin is quite uncertain, but it passed in and out of the possession of many nations before it was finally conquered by the Romans after a long siege in 89 B. C.

Before the end of the republic Pompeii became the suburban home of many of the Roman nobles, who built beautiful villas in the neighborhood and greatly popularized the city among people of high degree. Cicero was one prominent occasional resident, and his letters frequently mention with enthusiasm his villa there.

Under the Roman empire the same custom continued, and during the first century of the Christian era it was a flourishing place with a considerable population.



PRACTICALLY DESTROYED, THEN REBUILT.

Only two historic events are recorded of the city during this period. The first was a fight in the amphitheater between visitors from the neighboring colony of Nuceria and the citizens of Pompeii, in which many were killed and wounded. As a result of this all gladiatorial and theatrical exhibitions were prohibited there for ten years. This was in 59 A. D.

Four years later the city was practically destroyed by earthquake. All the neighboring towns were injured by this disturbance, but Pompeii was the most severely affected. Most of the public buildings and very many of the private residences were destroyed or so badly injured that they had to be rebuilt. This work of restoring the city was actively under way when, in a day, the whole life of the city was wiped out and the very location of the flourishing little colony was lost, to remain so for many centuries.

BURIED WITH HERCULANEUM.

In 79 A. D., Vesuvius, which had been slumbering for unknown ages, suddenly burst into terrific eruption. Vast masses of earth and ashes were thrown into the air and fell in a great shower over the surrounding country, and lava spouted from the mountain's crater. The whole country was violently disturbed. Devastation was wrought all around the shores of the gulf and the two cities of Herculaneum and Pompeii were completely buried under dense masses of cinders and ashes.

The cities were destroyed in a different manner, however. Over Herculaneum there came a solid mass of volcanic tufa that obliterated it. Upon Pompeii there fell from eighteen to twenty feet of cinders, small stones, and ashes thrown out by the volcano. It has been established that this was all done by one eruption, though there are two distinct strata, the lower one of the stones and the heavier materials and the upper of fine white ash, which is often consolidated by the action of water.

PEOPLE ENTOMBED WHILE ALIVE.

The devastation was at least so sudden that the inhabitants had no chance to escape. They were caught like rats in a trap in their houses, in the streets, and in public buildings. Only a few blind people, familiar by the sense of feeling, were able to make their escape, the city being covered, it is believed, with a pall of blackness like the darkest night. People were overcome at their work and fell where they stood. Soon their bodies were covered with the fine ashes. As decay set in these ashes absorbed the liquids and a sort of petrification took place. In many cases a shell was formed from which an accurate mold of the bodies could be cast.

Some of the Roman soldiers, standing on guard, did not desert their posts and were slowly buried alive. Their remains are found today where they died

standing at attention, almost as unmoving as the shells of their bodies have been through the long centuries.

CITY UNCOVERED CENTURIES LATER.

So entirely did this coating hide the city that its site was forgotten, and ancient topographers looked in vain for it. There were important changes in the topography of the country that helped to make its location difficult, and it was not till 1748 that it was accidentally discovered that the vineyards and mulberry grounds of the modern Italy covered the buried city at a point near the foot of the mountain. Herculaneum had been discovered before this, but, owing to the nature of its burial, its remains were infinitely less perfect and harder to get at than those of Pompeii.

Systematic exploration of the latter city began in 1755, though the work was not regular in character or scientifically thorough until the first years of the nineteenth century, when the French government began to take part in the work.

The work of uncovering this ancient city is still under way. It has of late years been under the direction of Sig. Fiorelli, and has been carefully and thoroughly done. Photography has given important aid, and an accurate and complete idea of the ancient city is now at the service of all.

DISCLOSES ART OF THE ROMANS.

The town was irregularly oval in shape and was situated on a small elevation about a mile from the outer cone of Vesuvius, the hill evidently created by a previous outpouring of lava from the volcano. Before the great eruption its base was laved by the water of the bay, but the town is today more than a mile inland. The city was surrounded by a turreted wall, which is still preserved, and was quite regular in its plan, the generally narrow streets being nearly all straight and running at right angles. Only about two-fifths of the whole town has been excavated, but the excavations undoubtedly cover the most important parts and are sufficient to give a pretty exact estimate of the entire city.

The architectural and art remains that have been disclosed on the site of Pompeii are of remarkable interest and much beauty. They have given the world a picture of the life of eighteen centuries ago that was impossible before. The decorations of the houses, the works of sculpture, the public buildings, the baths, theaters, forum, and amphitheater, a hundred phases of that ancient life, have been brought to light in a wonderfully fine state of preservation. Even the bodies of the terrified inhabitants have been in a hundred of instances so preserved by the peculiar alkali covering that even their features were accurately preserved. No documents have yet been found in the ruins, though some inscriptions have, but the whole city is a document of inestimable value and interest, and itself tells a thrilling story of the terrific tragedy that blotted out its busy life in an hour.

The only modern inhabitants of Pompeii are the caretakers and guides placed there by the Italian government and who, for 2 francs, show the tourists the ruins of the ancient forum, the amphitheater, the temple of Apollo, the homes of some of them fully equipped with the domestic utensils, etc., of the days when Pompeii was in its glory, the statues, jewelry, and a thousand and one things that have been uncovered.

FEARFUL ERUPTIONS SINCE THAT OF 79.

Often, since the destruction of Pompeii and Herculaneum, Mount Vesuvius has given evidence of its subterranean might. Of the succession of ancient eruptions which followed that depicted by Bulwer, the most severe fell in 203, 472, 512 and 993. The first recorded discharge of lava since the last days of Pompeii occurred in 1036, or thirty years before the Normans conquered England.

The first great modern eruption was that of 1631, eleven years after the Pilgrim fathers landed on Plymouth rock. For a long time before this outburst the peaceful crater had become so overgrown with vegetation that it offered a jungle for wild boars, while cattle grazed on the slopes a little below. But a sudden tidal wave of lava, utterly unexpected, engulfed 18,000 people, many of the coast towns being wholly and the remainder partially wiped out.

Another outburst in 1676 was remarkable for having thrown a perpendicular stream of lava high in the air.

From scattering eruptions in ancient, medieval and early modern times the outbursts had increased to nine in the seventeenth century. The eighteenth was to increase this to twenty-six.

MADE NAPLES DARK AT NOON.

In 1707 the volcano sent forth a cloud of ashes so dense that at midday in the streets of Naples the blackness of the darkest night reigned supreme. The shrieks of terror-stricken women pierced the air, and the churches were crowded by the populace. The relics of San Januarius—his skull among them—were carried in procession through the streets.

Thirty years later a stream of lava one mile wide and containing 300,000,000 cubic feet burst from the mountain side. The next notable eruption was that of 1760, when new cones formed at the side and gave forth lava, smoke, and ashes. Seven years later the King of Naples hastily retreated into the capital from the palace at Portici, threatened by a fresh outburst, and found the Neapolitans again in confusion.

Thirty-two years later, while our patriot fathers were in the midst of their struggle for freedom, a column of liquid fire burst from the crater and rose to three times the height of the mountain.

ERUPTIONS GAIN IN FREQUENCY.

That the Vesuvian eruptions are gaining in frequency is attested by the record of the nineteenth century, surpassing as it does that of the eighteenth.



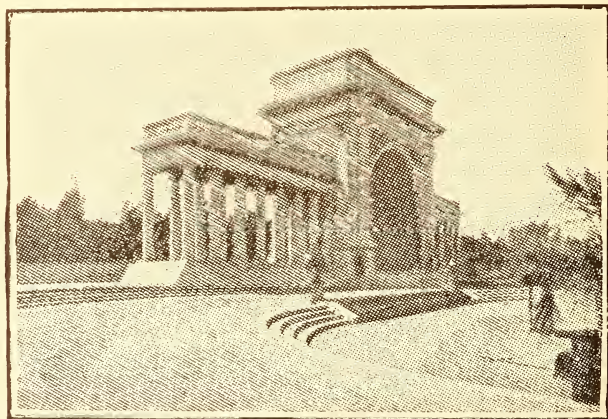
Business Blocks and Monuments all Totally Destroyed.

The first of note occurred in 1822, when the top of the great cone fell in and a lava stream a mile in width poured out. Vapor, condensed into rain, inundated some districts. Altogether 800 feet of the cone was blown away, leaving a hole 938 feet deep in the crater. Twelve years later a river of lava nine miles long wiped out a town of 500 houses. One stream threatened Pompeii with another interment.

Lava flowed almost to the gates of Naples in 1855 and caused a deplorable loss of property to the cultivated region above. Twelve years later a new cone was raised to a height greater than that attained by in historic times.

Blocks of stone forty-five feet in circumference were hurled down the mountain by the spectacular outburst of 1872. Two lava floods rushed down the valley on two sides, ashes were shot thousands of feet in the air, and the sea rose for miles. More than 20,000,000 cubic feet of lava was ejected in a single day. A cloud of smoke enveloped parties of tourists escorted by guides. They were caught under a hail of burning projectiles and close to a lava torrent. An unknown number, including eight medical students, were buried beneath this seething stream. Two dead bodies were picked up and eleven victims found still alive.

Since 1879 Vesuvius has been variously active, there being two eruptions of note in 1900; two others in 1903. But that of the present autumn has been more violent than any since 1872. Red hot stones hurled 1,600 feet above the cone have dropped down the flanks of the mountain with deafening sound. One stone thrown out weighed two tons, while 1,844 violent explosions have been recorded in a single day by the instruments of the seismic observatory.



THE SPRECKLES MUSIC STAND IN GOLDEN GATE PARK, 'FRISCO.

CHAPTER XXII.

CHARLESTON WRECKED BY EARTHQUAKE.

City Laid in Ruins After Tremors Lasting Three Months—Many Killed and Immense Damage Done—Earth Undulates Constantly for Long Period—Scores of Women and Children Buried in Debris.

And said to the mountains and rocks, Fall on us and hide us from the face of him that sitteth on the throne, and from the wrath of the Lamb;

For the great day of his wrath is come; and who shall be able to stand?—Rev., 6: 16, 17.

CHARLESTON QUAKE HELD RECORD.

Before the San Francisco earthquake the shock at Charleston, S. C., August 31, 1886, was the greatest disaster of the kind which ever had stricken America. Several hundred houses were wholly or partly destroyed, and 95 per cent of the buildings in the city were damaged. All but about 100 out of 14,000 chimneys were thrown to the ground, and forty-four people were killed. The damage done amounted to about \$5,000,000.

Tremors of the earth had been felt at Charleston for three months before. On the day of the great earthquake there were seventeen shocks. The main shock came at 9:51 o'clock at night.

"There was a sound," said an observer, "that seemed to come from the office below, and was supposed for a moment to be caused by the rolling of a heavy body, as an iron safe or a heavily laden truck, over the floor. Accompanying the sound was a perceptible tremor of the building.

SHOCK A CONTINUOUS JAR.

"For perhaps two or three seconds the occurrence excited no surprise or comment. Then, by swift degrees, or all at once, it is difficult to say which, the sound deepened in volume, the tremor became more decided, the ear caught the rattle of window sashes, gas fixtures, and other movable objects; the men in the office glanced hurriedly at each other and sprang to their feet. And then all was bewilderment and confusion.

"The long roll deepened and spread into an awful roar that seemed to pervade at once the troubled earth and the still air above and around. The tremor was now a rude, rapid quiver that agitated the whole lofty, strong walled building at though it was being shaken—shaken by the hand of an immeasurable power, with the intent to tear its joints asunder and scatter its stones and bricks abroad. There was no intermission in the vibration.

"From the first to the last it was a continuous jar, adding force with every moment, and, as it approached and reached the climax of its manifestation, it seemed that no work of human hands could possibly survive the shocks.

The floors were heaving underfoot, the surrounding walls and partitions visibly swayed to and fro, the crash of falling masses of stone and brick and mortar was overhead and without.

"For a second or two it seemed that the violent motion was subsiding. It increased again and became as severe as before. None hoped to escape. The uproar slowly died away in seeming distance. The earth was still and O! the blessed relief of that stillness."

2,800,000 SQUARE MILES SHAKE.

The shock was felt at Boston, La Crosse, Wis., in Cuba, and Bermuda. The total disturbed area has been estimated at 2,800,000 square miles. The vibrations traveled at the rate of three and a quarter miles a second. The largest fissures made in the earth were only a few hundred yards in length, and, except near river banks, rarely exceeded an inch in width. From many fissures water, carrying with it sand and silt, was ejected.

The effect of earthquakes on different peoples are widely different. The Japanese are said while they are taking place to exhibit the greatest calmness. The people of Charleston, according to the eye witness already quoted, were wild with fright, and "from every quarter rose the shrieks, the prayers and wailings of terrified women and children, mingled with the hoarser shouts of excited men.

"On every side were hurrying forms of men and women, bareheaded, some almost nude, and all nearly crazy with fear and excitement. A few steps away a woman lay prone on the pavement, with upturned face and outstretched limbs, none pausing to see whether she was alive or dead."

The Charleston earthquake is notable in that the shock was continuous—something never before known. The whole city rocked like a boat at sea, and after the undulations the city settled back to quiet with a shock that tore it down.

When the toll of casualties was taken it was found that hundreds had been buried beneath the debris, and heroic work was done under tottering walls. Many women and children were taken out unconscious, just as they were about to be suffocated. The whole city was a wreck, and it was years before the ravages of the mighty seismic disturbance were repaired in full. Like other cities which have met great disasters, Charleston was rebuilt better and more beautiful.

CITY ONE OF OLDEST IN AMERICA.

The city which was wrecked was one of the oldest in America, having been founded in 1680 by the English. The town grew rapidly and took its place as a city in 1783, when it was incorporated. The earthquake has not been its only disaster, for in 1838 a fire destroyed nearly all of the buildings, which then were considered marvels of architecture.

The Civil War was inaugurated at Charleston, April 12, 1861, when the

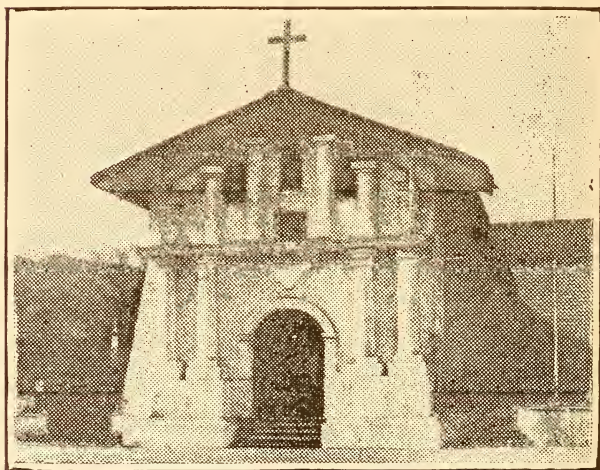


A Wealthy Business Man of San Francisco Viewing the Ruins of his Home.

bombardment of Fort Sumter began. The Union forces surrendered this to the Confederates two days later, and later in the year the war-racked city was blockaded and bombarded by a Northern fleet.

The Union fleet was defeated just outside the city January 1, 1863, and an attack on Fort Sumter, July 10, of that year, cost the lives of several hundred persons. The Confederates abandoned the city February 17, 1865, after it had been shelled many times and practically ruined.

The next great blow to Charleston, growing in face of great obstacles, was its destruction by the earthquake. Since then the city has grown steadily. It added to its fame in 1901 by an exposition, and at the time of the San Francisco disaster had about 70,000 population.



THE MISSION-DOLORES.
Famous Old Spanish Catholic Church, Built Two Centuries Ago.

CHAPTER XXIII.

JOHNSTOWN'S FATAL FLOOD.

Disaster Came After Warning—Nearly 2,300 Perish in Deadly Trap—Deluge Rebounds and Fire Comes—Gorge at the Railroad Bridge—People Crazy by Their Sufferings.

And I will shew wonders in heaven above and signs in earth beneath; blood, and fire, and vapour of smoke.

The sun shall be turned into darkness and the moon into blood, before that great and notable day of the Lord come.—Acts 2: 19, 20.

Previous to the year 1900 the Johnstown disaster was the most frightful calamity known in the history of the United States. It occurred on Friday, May 31, 1889, at 12:45 p. m. Johnstown was situated in the Conemaugh Valley in Pennsylvania. It was a town of 30,000 inhabitants. Above it in the mountains slept the waters of the Conemaugh Lake, a beautiful body of water three and a half miles long and one and a fourth miles wide, formed by building a dam across a deep gorge in the mountain.

With not even a warning shout to apprise the inhabitants the dam gave way, and that great mass of water came leaping and tumbling down the valley to Johnstown, and the city with its inhabitants was drowned in a flood of angry waters. When the deluge subsided where had stood the homes of so many happy toilers there were but twisted and shapeless piles of drift-wood and the bodies of the dead and dying.

LOSS OF LIFE NEARLY 2,300.

From the lake to Johnstown in a straight line was but two and a half miles, but following the winding valley the waters had to cover thirteen miles before they struck the town. But the flood moved with such terrific speed that within a few minutes after the breaking of the dam nearly 2,300 men, women and children were lying dead in the wreckage of the city; millions of dollars' worth of property was destroyed, and thousands of people beggared.

Hundreds of business buildings and residences were destroyed, and less than a score of the structures composing the town were uninjured; complete paralysis followed, and many said, as in the case of Galveston, the city would not be rebuilt; hundreds were crazed by their sufferings and never regained their reason; thieves swarmed to the place and looted the bodies of the dead until the arrival of several thousand State troops put an end to the carnival of crime; the impoverished survivors were cared for until they could get upon their feet again and relief pouring in from everywhere in the shape of hundreds of thousands of dollars in cash and thousands of carloads of supplies of all sorts, went to work.

On the other side of the town is the Stony Creek, which gathers up its

own share of the mountain rains and whirls them along toward Pittsburg. The awful flood caused by the sudden outpouring of the contents of the reservoir, together with the torrents of rain that had already swollen these streams to triple their usual violence, is supposed to be the cause of the sudden submersion of Johnstown and the drowning of so many of its citizens. The water, unable to find its way rapidly enough through its usual channels, piled up in overwhelming masses, carrying before it everything that obstructed its onward rush upon the town.

PEOPLE HAD BEEN WARNED.

The people of Johnstown had been warned of the impending flood as early as 1 o'clock in the afternoon, but not a person living near the reservoir knew that the dam had given way until the flood swept the houses off their foundations and tore the timbers apart. Escape from the torrent was impossible. The Pennsylvania Railroad hastily made up trains to get as many people away as possible, and thus saved many lives.

Four miles below the dam lay the town of South Fork, where the South Fork itself empties into the Conemaugh River. The town contained about 2,000 inhabitants, and four-fifths of it was swept away.

Four miles further down, on the Conemaugh River, which runs parallel with the main line of the Pennsylvania Railroad, was the town of Mineral Point. It had 800 inhabitants, 90 per cent of the houses being on a flat and close to the river. Few of them escaped.

Six miles further down was the town of Conemaugh, and here alone was there a topographical possibility of the spreading of the flood and the breaking of its force. It contained 2,500 inhabitants and was wholly devastated.

Woodvale, with 2,000 people, lay a mile below Conemaugh, in the flat, and one mile further down were Johnstown and its cluster of sister towns, Cambria City, Conemaugh borough, with a total population of 30,000.

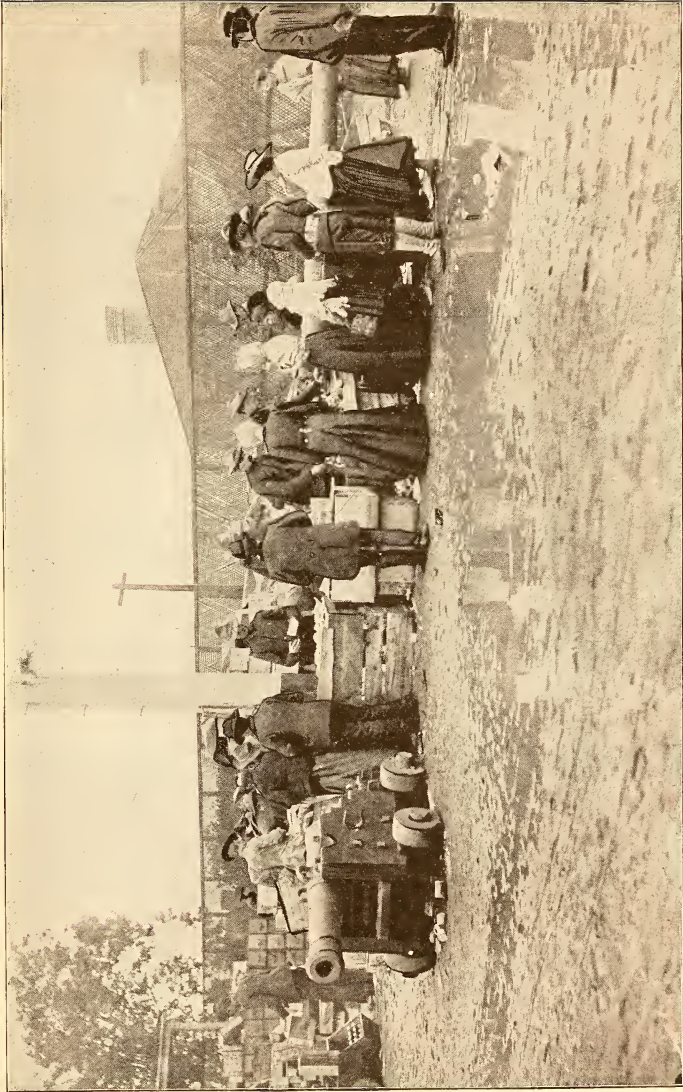
On made ground, and stretching along right at the river verge, were the immense iron works of the Cambria Iron and Steel Company, which had \$5,000,000 invested in the plant.

FLOOD REBOUNDS AND FIRE COMES.

The great damage to Johnstown was largely due to the rebound of the flood after it swept across. The wave spread against the stream of Stony Creek and passed over Kernsville to a depth of thirty feet in some places.

The exact number of the victims of this dreadful disaster will never be known. Bodies were found beyond Pittsburg. The loss of property was about \$10,000,000.

All was over in a few moments' time. The flood rushed down the valley when released from its prison, swept earth, trees, houses and human beings before it, depositing the vast debris in front of the railroad bridge, which formed an impassable barrier to the passage of everything except the vast



One of the Places where Bread was Distributed to the Homeless.

agent of destruction—the flood—which overflowed it and passed on to wreak fresh vengeance below.

GORGE AT THE RAILROAD BRIDGE.

One of the most terrible sights was the gorge at the railroad bridge. This gorge consisted of debris of all kinds welded into an almost solid mass. Here were the charred timbers of houses and the charred and mutilated remains of human beings. The fire at this point, which lasted until June 3 and had still some of its vitality left on the 5th, was one of the incidents of the Johnstown disaster that has become historic.

When the great storm of Friday came the dam was again a source of uneasiness, and early in the morning the people of Johnstown were warned that the dam was weakening. At 1 o'clock in the afternoon the resistless flood tore away the huge lumber boom on Stony Creek. This was the real beginning of the end. The enormous mass of logs was hurled down upon the doomed town.

Had the logs passed a seven-arch bridge Johnstown might have been spared much of its horror. There were already dead and dying, and homes had already been swept away, but the dead could only be counted by dozens and not yet by thousands. Wedged fast at the bridge, the logs formed an impenetrable barrier. People had moved to the second floor of their houses and hoped that the flood might subside. There was no longer a chance to get away, and had they known what was in store for them the contemplation of their fate would have been enough to make them stark mad.

Only a few hours had elapsed from the time of the breaking of the lumber boom when the waters of Conemaugh Lake rushed down upon them.

RIVER FLOWS THROUGH THE CITY.

The towering wall of water swooped down upon Johnstown with a force that carried everything before it. The blockade backed the water up into the town, and as there had to be an outlet somewhere the river made a new channel through the heart of the lower part of the city. Again and again did the flood hurl itself against the bridge, and each wave carried with it houses, furniture and human beings. The bridge stood firm, but the railway embankment gave way, and fifty people were carried down to their deaths in the new break.

It was now night, and darkness added to the terror of the situation. Then came flames to make the calamity all the more appalling. Hundreds of buildings had been piled up against the stone bridge. The inmates of but few of them had had time to escape. Just how many people were imprisoned in that mass of wreckage may never be known, but the number was estimated at between 1,000 and 2,000. The wreckage was piled to a height of fifty feet, and suddenly flames began leaping up from the summit.

Shrieks and prayers from the unhappy beings imprisoned in the wrecked

houses pierced the air, but little could be done. Men, women and children, held down by timbers, watched with indescribable agony the flames creep slowly toward them until the heat scorched their faces, and then they were slowly roasted to death.

Those who were held fast in the wreck by an arm or a leg begged piteously that the imprisoned limb be cut off. Some succeeded in getting loose with mangled limbs, and one man cut off his arm that he might get away. Those who were able worked like demons to save the unfortunates from the flames, but hundreds were burned to death.

Meanwhile Johnstown had been literally wiped from the face of the earth; Cambria City was swept away and Conemaugh borough was a thing of the past.

The little village of Millville, with a population of 1,000, had nothing left of it but the school house and the stone buildings of the Cambria Iron Company. Woodvale was gone and South Fork wrecked. Hundreds of people were drowned in their homes, hundreds were swept away in their dwellings and met death in the debris that was whirled madly about on the surface of the flood; hundreds, as has been said, were burned, and hundreds who sought safety on floating driftwood were overwhelmed by the flood or washed to death against obstructions.

The instances of heroism and self-sacrifice were never excelled, perhaps not equaled, on a battlefield. Men rather than save themselves alone died nobly with their families, and mothers willingly gave up their lives rather than abandon their children.

CRAZED BY THEIR SUFFERINGS.

When the great waves of death swept through Johnstown the people who had any chance of escape ran hither and thither in every direction. They did not have any definite idea where they were going, only that a crest of foaming waters as high as the housetops was roaring down upon them through the Conemaugh, and that they must get out of the way of that. Some in their terror dived into the cellars of their houses, though this was certain death. Others got up on the roofs of their houses and clambered over the adjoining roofs to places of safety. But the majority made for the hills, which girt the town like giants.

Of the people who went to the hills the water caught some in its whirl. The others clung to trees and roots and pieces of debris which had temporarily lodged near the banks, and managed to save themselves. These people either stayed out on the hills wet, and in many instances naked, all night, or they managed to find farm houses which sheltered them. There was a fear of going back to the vicinity of the town. Even the people whose houses the water did not reach abandoned their homes and began to think of all of Johnstown as a city buried beneath the water.

Rebuilding began before the waters had disappeared, and today the city is larger and better constructed than before.

CHAPTER XXIV.

GALVESTON!

Storm Breaks Over Fated Island—Deadly Work of Four Hours—Fury of the Hurricane—A Fearful Saturday Night—People Stunned; Food Gone—What a Relief Party Saw Sunday Morning—Vampires and Thieves Hold Sway—Looting and Plunder Everywhere—Bodies Consigned to the Flames—Supplies Delayed and People Starving.

How unsearchable are his judgments, and his ways past finding out.—Romans, 11: 33.

Approaching in horror the San Francisco disaster stands the Galveston flood—unparalleled in the history of the world. A frightful West Indian hurricane, lashing up a tidal wave, descended upon the beautiful and progressive city on September 8, 1900, causing the loss of nearly ten thousand lives and the destruction of millions of dollars' worth of property. The storm then ravaged Central and Western Texas, killing several hundred people and inflicting damage that years were required to repair.

When the gale approached the island upon which Galveston is situated, it lashed the waves of the Gulf of Mexico into a tremendous fury, causing them to rise to all but mountain height, and then it was that, combining their forces, the wind and water pounced upon their prey.

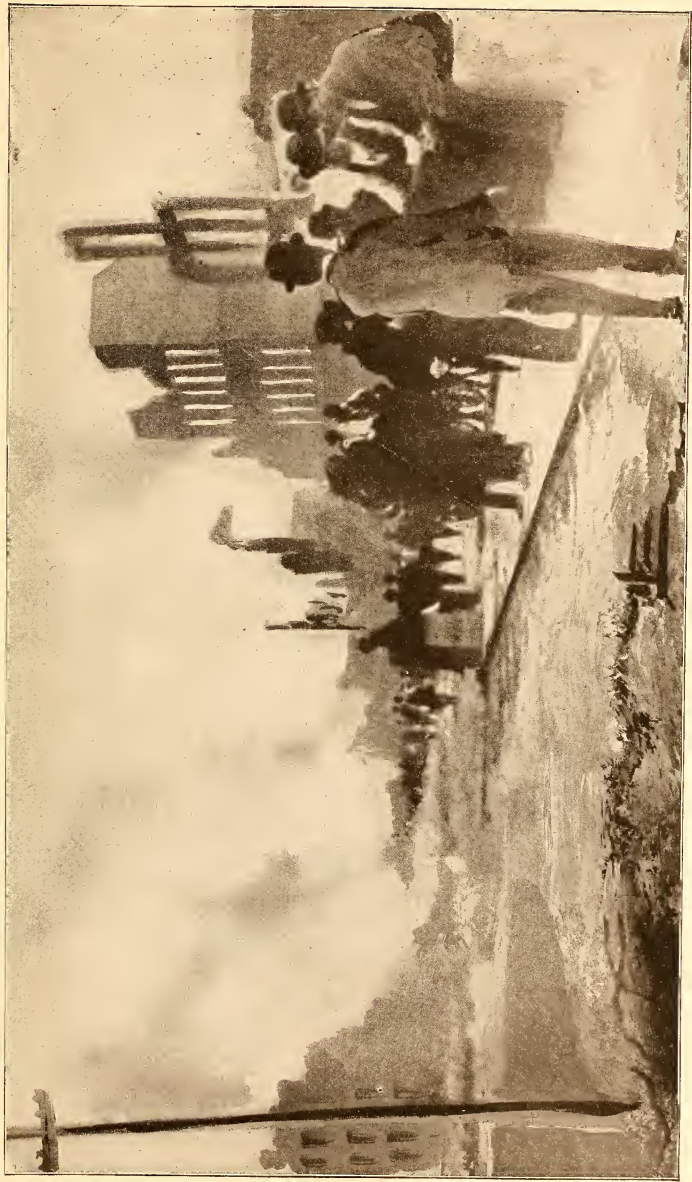
DEADLY WORK OF FOUR HOURS.

In the short space of four hours the entire site of the city was covered by angry waters, while the gale blew at the rate of one hundred miles an hour; business houses, public buildings, churches, residences, charitable institutions, and all other structures gave way before the pressure of the wind and the fierce onslaught of the raging flood, and those which did not crumble altogether were so injured, in the majority of cases, that they were torn down.

Such a night of horror as the unfortunate inhabitants were compelled to pass has fallen to the lot of few since the records of history were opened. In the early evening, when the water first began to invade Galveston Island, the people residing along the beach and near it fled in fear from their homes and sought the highest points in the city as places of refuge, taking nothing but the smaller articles in their houses with them. On and on crawled the flood, until darkness had set in, and then, as though possessed of a fiendish vindictiveness, hastened its speed and poured over the surface of the town, completely submerging it—covering the most elevated ground to a depth of five feet and the lower portions ten and twelve feet.

FURY OF THE HURRICANE.

The hurricane was equally malignant, if not more fiendish and cruel, and tore great buildings and beautiful homes to pieces with evident delight, scat-



A Typical View of the Streets of San Francisco after being Swept with Fire and Earthquake.

tering the débris far and wide; telegraph and telephone lines were thrown down, railway tracks and bridges—the latter connecting the island and city with the mainland—torn up, and the mighty, tangled mass of wires, bricks, sections of roofs, sidewalks, fences and other things hurled into the main thoroughfares and cross streets, rendering it impossible for pedestrians to make their way along for many days after the waters and gale had subsided.

Forty thousand people—men, women and children—cowered in terror for eight long hours, the intense blackness of the night, the swishing and lapping of the waves, the demoniac howling and shrieking of the wind and the indescribable and awful crashing, tearing and rending as the houses, hundreds at a time, were wrecked and shattered, ever sounding in their ears.

Often, too, the friendly shelter where families had taken refuge would be swept away, plunging scores and scores of helpless ones into the mad current which flowed through every street of the town, and fathers and mothers were compelled to undergo the agony of seeing their children drown, with no possibility of rescue; husbands lost their wives and wives their husbands, and the elements were only merciful when they destroyed an entire family at once.

A FEARFUL SATURDAY NIGHT.

All during that fearful night of Saturday until the gray and gloomy dawn of Sunday broke upon the sorrow-stricken city, the entire population of Galveston stood face to face with grim death in its most horrible shapes; they could not hope for anything more than the vengeance of the hurricane, and as they realized that with every passing moment souls were being hurried into eternity, is it at all wonderful that, after the strain was over and all danger gone, reason should finally be unseated and men and women break into the unmeaning gayety of the maniac?

Not one inhabitant of Galveston old enough to realize the situation had any idea other than that death was to be the fate of all before another day appeared, and when this long and weary suspense, to which was added the chill of the night and the growing pangs of hunger, was at last broken by the first gleams of the light of the Sabbath morn, the latter was not entirely welcome, for the face of the sun was hidden by morose and ugly clouds, from which dripped, at dreary intervals, cold and gusty showers.

Thousands were swallowed up during the darkness and their bodies either mangled and mutilated by the wreckage which had been tossed everywhere, left to decompose in the slimy ooze deposited by the flood or forced to follow the waves in their sullen retirement to the waters of the gulf. The destruction was terrific; miles and miles of railroad track had disappeared, and the bridges carried away; there was absolutely no means of communication with the outer world except by boat.

GHOULS PLY THEIR FIENDISH WORK.

The strange spectacle was then presented of the richest city of its size in

the richest country in the world lying prostrate, helpless and hopeless, a prey to ghouls, vultures, harpies, thieves, thugs and outlaws of every sort; its people starving, and the putrid bodies of its dead breeding pestilence.

Never did a storm work more cruelly. All the electric light and telegraph poles were prostrated and the streets were littered with timbers, slate, glass and every conceivable character of débris. There was hardly a habitable house in the entire city, and nearly every business house was either wrecked entirely or badly damaged.

On Monday there were deaths from hunger and exposure, and the list swelled rapidly. People were living as best they could—in the ruins of their homes, in hotels, in schoolhouses, in railway stations, in churches, in the streets by the side of their beloved dead.

So great was the desolation one could not imagine a more sorrowful place. Street cars were not running; no trains could reach the town; only sad-eyed men and women walked about the streets; the dead and wounded monopolized the attention of those capable of doing anything whatever, and the city was at the mercy of thieves and ruffians.

From Tremont to P street, thence to the beach, not a vestige of a residence was to be seen.

PEOPLE STUNNED; FOOD GONE.

In the business section of the city the water was from three to ten feet deep in stores, and stocks of all kinds, including foodstuffs, were total losses. It was a common spectacle—that of inhabitants of the fated city wandering around in a forsaken and forlorn way, indifferent to everything around them and paying no attention to inquiries of friends and relatives.

Starting as soon as the water began to recede Sunday morning, a relief party began the work of rescuing the wounded and dying from the ruins of their homes. The scenes presented were almost beyond description. Screaming women, bruised and bleeding, some of them bearing the lifeless forms of children in their arms; men, broken-hearted and sobbing, bewailing the loss of their wives and children; streets filled with floating rubbish, among which there were many bodies of the victims of the storm, constituted part of the awful picture. In every direction, as far as the eye could reach, was desolation.

The depredations of the lawless element were of an inconceivably brutal character. Unprotected women, whether found upon the streets or in their houses, were subjected to outrage or assault and robbed of their clothing and jewelry. Pedestrians were held up on the public thoroughfare in broad daylight and compelled to give up all valuables in their possession. The bodies of the dead were despoiled of everything, and in their haste to secure valuables the ghouls would mutilate the corpses, cutting off fingers to obtain the rings thereon and amputating the ears of the women to get the earrings worn therein.

VAMPIRES AND THIEVES HOLD SWAY.

The majority of the thieves and vampires belonged in the city of Galveston

and were re-enforced by desperadoes from outside towns, like Houston, Austin and New Orleans, who took advantage of the rush to the city immediately after the disaster, obtaining free transportation on the railroad and steamers upon a pretense that they were going to Galveston for the purpose of working with relief parties and the gangs assigned for burial of the dead.

Their outrages became so flagrant and the people of the city became so terrified in consequence of their depredations that the city authorities were unable to cope with them, most of the officers of the police department being instructed to shoot them on the spot when found in the act of robbery. In every instance the pockets of the harpies slain by the United States troops were found filled with jewelry and other valuables, and in some cases, notably that of one negro, fingers were found in their possession which had been cut from the hands of the dead, the vampires being in such a hurry that they could not wait to tear the rings off. On Wednesday evening the government troops came across a gang of fifty desperadoes, who were despoiling the bodies of the dead found enmeshed in the débris of a large apartment house.

With commendable promptness the regulars put the ghouls under arrest, and finding the proceeds of their robberies in their possession lined them up against a brick wall and, without ceremony, shot every one of them. In cases where the villains were not killed at the first fire the sergeant administered coup de grace. Many of the thugs begged piteously for mercy, but no attention was paid to their feelings, and they suffered the same stern fate as the rest.

When the state troops arrived in the city they took the same severe measures, and the result was that within forty-eight hours the city was as safe as it had ever been. The police arrested every suspicious character and the jail and cells at the police station were filled to overflowing.

LOOTING AND PLUNDER EVERYWHERE.

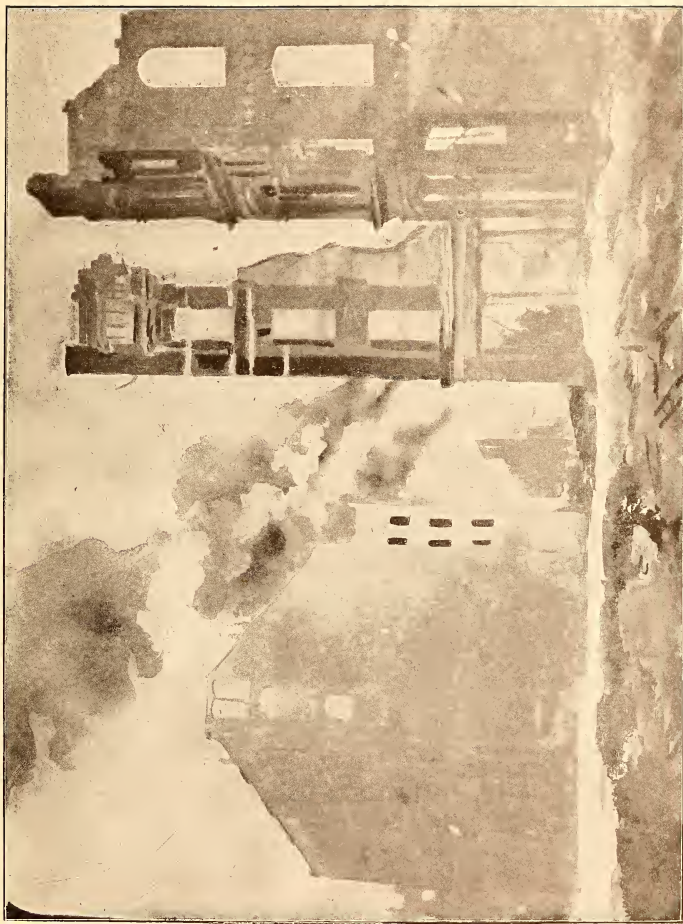
Tuesday night ninety-two negro looters were shot in their tracks by citizen guards. One of them was searched and \$700 found, together with four diamond rings and two water-soaked gold watches. The finger of a white woman with a gold band around it was clutched in his hands.

In the afternoon, at the suggestion of Colonel Hawley, a mounted squad of nineteen men, under Adjutant Brokridge, was detailed by Major Faylings to search a house where negro looters were known to have secreted plunder.

"Shoot them in their tracks, boys! We want no prisoners," said the major. The plunderers changed their location before the arrival of the detachment, however, and the raiders came back empty-handed. Twenty cases of looting were reported between 3 and 6 in the evening.

At 6 o'clock a report reached Major Faylings that twenty negroes were robbing a house at Nineteenth and Beach streets.

"Plant them," commanded the young major, as a half dozen citizen soldiers, led by a corporal, mustered before him for orders.



All that was Left of a Great Business Block.

"I want every one of those twenty negroes, dead or alive," said the major.

The squad left on the double quick. Half an hour later they reported ten of the plunderers killed.

The city was put under martial law Tuesday noon.

An effort was made to identify the corpses, but it was soon found that work could not be proceeded with, as any delay imperiled the living.

PESTILENCE BEGAN.

Along the beach hundreds of corpses were buried in the sand, but the majority of the burials were at sea. By Wednesday night 2,500 bodies had been cast into the water, while about 500 had been interred within the city limits. Precautions were taken, however, to mark the graves and when the ground had dried sufficiently the bodies were disinterred and taken to the various cemeteries, where, after burial, suitable memorials were erected to mark their last resting place. No attempts were made at identification after Wednesday, lists being simply made of the number of victims. The graves of those buried in the sand were marked by headboards with the inscriptions, "White man, aged forty;" "White woman, aged twenty-five," and "male" or "female" child, as the case might be.

BODIES CONSIGNED TO THE FLAMES.

So accustomed did the burial parties become to the handling of the dead that they treated the bodies as though they were merely carcasses of animals and not bodies of human beings, and they were dumped into the trenches prepared for their reception without ceremony of any kind. The excavations were then filled up as hurriedly as possible, the sand being packed down tightly.

It was practically an impossibility to get anyone to touch the bodies of the negro victims, decomposition having set in earlier than in the cases of the whites, and had it not been that members of the fire department volunteered their services the remains of the negroes would have remained unburied for a longer time than they were.

The bodies of the dead were now so offensive that to attempt identification was impossible. Fears were entertained that contagion would spring from the surroundings. Pestilence could only be avoided by cremation. That was the order of the day. Human corpses, dead animals and all debris were therefore to be submitted to the flames. On Thursday upward of 400 bodies, mostly women and children, were cremated, and the work went rapidly on. They were gathered in heaps of twenty and forty bodies, saturated with kerosene and the torch applied.

SUPPLIES DELAYED AND PEOPLE STARVING.

On Thursday, September 13, trainload after trainload of provisions,

clothing, disinfectants and medicines were lined up at Texas City, six miles from Galveston, all sent to the suffering survivors of the storm-swept city. Across the bay were thousands of people, friends of the dead and living, waiting for news of the missing ones and an opportunity to help, but only a meager amount of relief had at that time reached the stricken town. Two telegraph wires had been put up and partial communication restored to let the outside world know that conditions there were far more horrible than was at first supposed.

Every effort was put forth to reach the dying first, but all sorts of obstacles were encountered, because many of them were so badly maimed and wounded that they were unable to apply to the relief committees, and the latter were so burdened by the great number of direct applications that they were unable to send out messengers.

The situation grew worse every minute; everything was needed for man and beast—disinfectants, prepared foods, hay, grain, and especially water and ice. Scores more of people died that day as a result of inattention and many more were on the verge of dissolution.

A relief fund of many millions was raised and within a week great quantities of food and other necessities were in Galveston or on the way. Crowds of refugees by that time had fled to Houston.

The burning of 1,000 bodies in one day was one of the great acts of the soldiers. With the dead disposed of, rebuilding began, and the city of mourning now is larger, better constructed, and, with a great sea wall, a thousandfold safer than before.



GOVERNOR PARDEE,
OF CALIFORNIA.



EX-MAYOR JAS. D. PHELAN,
OF SAN FRANCISCO,
Who Had Charge of the Relief Work.

CHAPTER XXV.

ERUPTION OF MONT PELEE.

St. Pierre Falls Under Avalanche of Fire, Ashes and Lava—Great Tidal Wave Sweeps In—Steamer Wins Race With Death—Bodies Piled in Streets—Thousands Suffocated by Gas—Stirring Story of a Prisoner—St. Vincent Bathed in Flame.

And ye shall flee to the valley of the mountains for the valley of the mountains shall reach into Azal: yea ye shall flee, like as ye fled before the earthquake in the days of Uzziah king of Judah; and the Lord my God shall come and all the saints with thee.—Zech. 14: 5.

In an avalanche of fire and a river of molten lava, from 35,000 to 40,000 souls—the number never will be known—were hurled into eternity by an eruption of Mont Pelee, May 8, 1902, when the City of St. Pierre, on the Island of Martinique, the most southerly of the West Indies group, was buried under lava. The island is owned by France, and the people were rich and wicked. St. Pierre was the principal city, and only two score survived.

At almost the same time the volcano Soufriere, on the Island of St. Vincent, adjoining, split asunder and killed thousands more.

A Thursday morning dawned in splendor on the Island of St. Pierre and its people. The distance from the volcano to the sea is three miles, and to the town is five miles. Several hills and ravines lie between the town and the mountain, which, had the explosion occurred in the cone, would have partly saved the former. The vast fields of hot lava which were boiling in the base of Pelee for years were acted upon by an inlet of water.

EARTH'S CRUST BREAKS AND CAUSES ERUPTION.

This, no doubt, came through a crevice from the sea. The French Cable Company reported that the sea floor at Martinique had dropped over one thousand feet. A break in the earth's crust must have resulted. Through this the sea waves passed. Coming in contact with the lava bed, an immense amount of steam was generated.

Soon it became heated to an intensity of five or six tons' pressure to the square inch. It is almost impossible to conceive its latent force. The area which confined it could not hold the increasing volume. It sought an outlet. The cap over the summit of the crater proved too strong. It attacked the weakest side, which was adjacent to the town. This side of the mountain was unable to withstand the strain and blew out.

As long as it takes a projectile to shoot through the air and drop to earth, just so long it took the fierce, red-hot streams of molten rock and sheets of flame to fall upon the town.



Camping in Golden Gate Park after the Earthquake Destroyed their Homes.

STORY OF ONE OF THE FEW SURVIVORS.

The full story of the annihilation of St. Pierre can never be told in detail. From the lips of the survivors has come the little the world can ever know of it. The most accurate and the fullest came from Harvira Da Ifrile, a native girl, one of the thirty survivors rescued by the French cruiser *Suchet*. She said:

"I was going to vespers at the cathedral when mother asked me to go up to my aunt's, who lived half up the mountain, just where it turns below what we used to call the 'corkscrew,' an old crater which had a winding path, down which we used to lead visitors to the island.

"When I got to the 'corkscrew' I saw some puffs of smoke coming out of it, and only thinking it was some aged negro lighting a fire, I did not go to look. I had hardly gone more than three steps when I felt a hot wind from the 'corkscrew.' Thinking that something must be on fire, I ran to the top of the path, and there I saw the bottom of the pit all red, like boiling, with little blue flames shooting up from it. There were two guides leading a woman up the path and hurrying as fast as they could run. I saw a puff of blue smoke seem to hit the party and they fell as if killed.

SAW LAVA COVER PARTY.

"Horror-stricken, I stayed a minute or two till I saw the boiling stuff creep up the side of the 'corkscrew' until it covered the three people who were lying there. I got frightened then and ran down the road as fast as I could run, screaming all the way. I couldn't see anybody on the streets, and I was too frightened to stop and tell anybody. I think they must all have been at the cathedral, as it was the vigil of Ascension.

"Just as I got to the main street I saw this boiling stuff burst from the top of the 'corkscrew' and run down the side of the hill. It followed the road first, but then, as the stream got bigger, it ate up the houses both sides of the road. Then I saw that a boiling red river was coming from another part of the hill and cutting off the escape of the people who were running out of the houses.

"I ran as hard as I could to the beach and saw my brother's boat with sail set close to the stone wharf where he always kept it. I jumped in it, and just as I did so I saw him run down toward me. But he was too late, and I heard him scream as the steam first touched and then swallowed him.

"I cut the rope that held the boat and went to an old cave about a quarter of a mile away, where we girls used to play pirates, but before I got there I looked back and the whole side of the mountain which was near the town seemed to open and boil down on the screaming thousands. I was burned a good deal by stones and ashes that came flying about the boat, but I got into the cave.

A GREAT TIDAL WAVE FOLLOWS.

"I remember hearing an awful hiss as the boiling stuff struck the sea;

and the cave, which was generally dry, filled up to the top with water, and I do not remember any more until they picked me up two miles at sea and I found myself on the big steamer."

The officers of the *Suchet* say the girl was found unconscious in the sailing boat, which was badly charred and drifting helplessly, the mast and sail having been snapped off. It is thought the boat was too light to be swamped by the tidal wave.

The twenty-nine others who were saved by the *Suchet* told much the same story, but they did not see the first signs of the explosion. With one exception all the survivors were working close to the sea when the eruption began and had two full minutes to get away from the shore before, as the girl said, "the mountain opened its side and boiled down" upon the town.

Besides St. Pierre the towns of Le Precheur, three and a half miles northwest, and Manceau, were entirely destroyed. Le Precheur had a population of between 3,500 and 4,000. Manceau was smaller.

These towns were suburbs of St. Pierre. They were situated at the foot of the mountains, and many of the inhabitants saved themselves by taking to the high ground. Their escape was practically shut off by the sea of lava.

SAVED AS BY A MIRACLE.

One of the beautiful little suburbs of St. Pierre was saved. Around a promontory at the southern edges nestled the little village of Carbet, a pretty town of some four to six thousand people. And not one of them was hurt, the town having been screened by a high ridge which lay between it and St. Pierre.

Another eye witness, first mate of the *Roraima*, thus describes the disaster of St. Pierre:

"About 7:50 o'clock in the morning on Thursday, without warning, there came a sort of whirlwind of steam, boiling mud and fire, which suddenly swept the city and the roadstead. There were fifteen vessels anchored in the harbor, including the *Roraima*, the French sailing ship *Tamayaia*, four larger sailing ships and five others. All five vessels were immediately destroyed. All the boats except the *Roraima* sank instantly. The *Roraima* had on board the captain, crew and a few passengers. Captain Muggah showed great heroism in trying to save the lives of the passengers, which he failed in doing, except that of one little girl. In doing this, even, he sacrificed his own life.

EVERY HOUSE UTTERLY DESTROYED.

"Every house ashore was utterly destroyed and apparently burned under the ashes and molten lava. An officer who was sent ashore as soon as possible penetrated but a short distance into the city. He found only a few walls standing and the streets literally paved with corpses."

The streams of fire that destroyed St. Pierre came from the side of the

mountain, which opened and closed, leaving large and very deep crevices near Macuba and Grand Riviere. The sea during the catastrophe withdrew several hundred feet, coming back steaming with fury. The officers in charge of a boat making soundings off the island reported a depth of 4,000 feet where formerly it was only 600 to the bottom. Pumice stone and ashes covered the sea for many miles.

IMPOSSIBLE TO APPROACH THE CITY.

During the day following the eruption the heat in the vicinity of St. Pierre was so intense and the stream of flowing lava was so unremitting that it was impossible to approach the town. As evening came on the *Suchet*, after a heroic battle with the heat, suffocation and sulphur fumes, succeeded in making a dash toward the shore, nearing the land enough for her to take off the survivors of the disaster, all of whom were horribly burned and mutilated.

From the wharf where they landed a large number of bodies could be seen. The royal mail steamer *Esk* attempted to reach St. Pierre, but was unable to do so, as the city was blazing. She sent a boat ashore, but the crew did not see a living soul. The darkness, where unrelieved by the burning city, was impenetrable.

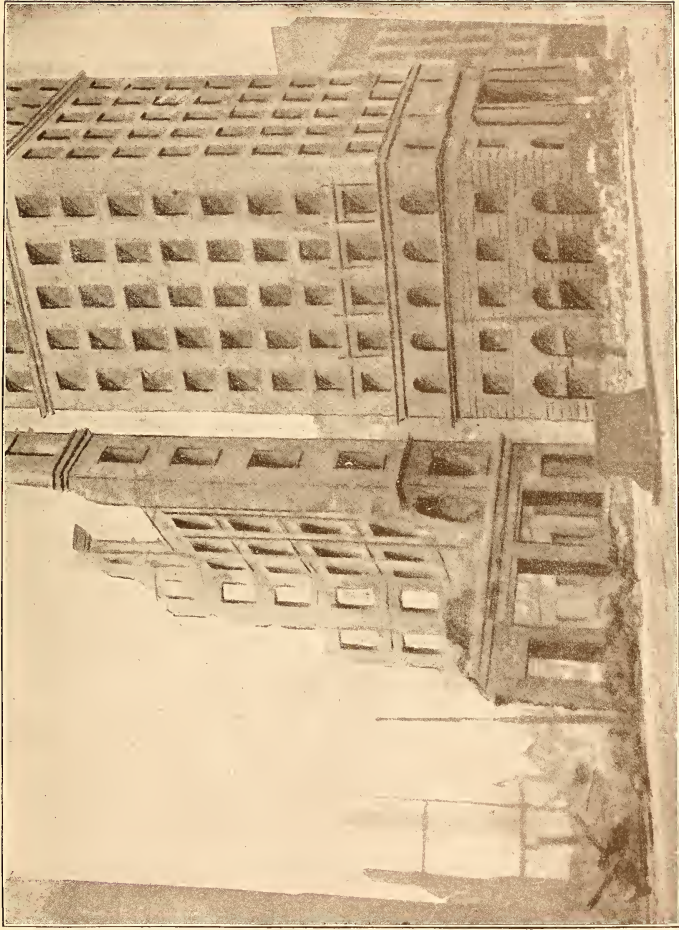
For two days after the eruption the sea was still a boiling caldron, and about St. Pierre for a distance of eight miles landward the intense heat from the volcano and the bed of hot ashes rendered it impossible to enter the town by land. But as approach became possible, the work of searching for friends began. Then it was that the extent of the calamity became known to the world.

STEAMER WINS RACE WITH DEATH.

The steamer *Roddam* escaped destruction by the fact that she had on a full pressure of steam and was able to run out of the harbor. When entering the harbor of St. Thomas some hours later she carried the news of the disaster. The vessel itself bore silent witness to the terrible calamity. It was battered by pieces of white hot lava, her rigging was burned off, her captain severely burned, and seventeen of her crew were dead. The purser and ten of the crew lost their lives by jumping overboard while in the harbor at St. Pierre.

The captain of the *Roddam* had cast anchor at St. Pierre just before the burst of fire that destroyed the place. The agent had come out to consult with him and was talking with him from a small boat when the shower of fire began. That was literally a rain of flame; it burned men to death on the deck and obliterated everything on the ship that fire and stones could destroy.

In that awful moment the captain acted as coolly as though such a storm of fire were a common thing in his experience. The anchor was cast off on his order and to the engine room a message was quickly sent directing the engineer to back the engine.



Showing what the Fire and Earthquake left of the Skyscraper Buildings.

Slowly the vessel, torn and dismantled, with dying men writhing upon her deck, began to creep away, the captain holding the wheel to guide her in her effort to escape from the hail of death. The burning cinders rained upon him, blistering his hands, but he did not flinch. There was refuge below from the fire that was beating upon the exposed deck, but he did not stir. Though he was in danger of being incinerated like the members of the crew that lay about the deck, he held the wheel and guided the vessel away from the awful scene.

BODIES PILED IN STREET.

The town was a mass of indescribable ruins. In the lower part, called the Monillage, the outlines of the streets could be determined and here and there were walls of houses, which still stood erect but battered and crushed on all sides. Amid the hopeless labyrinth of debris one was able to pick out the sites of the club, the bank, the bourse, the telegraph office and the principal shops.

Everywhere was the same scene of utter desolation and death. At the police station there was a large pile of bodies lying face downward as if the victims had fallen while in the act of running to escape the fate impending over them.

The fort and central quarters of the town were razed to the ground and were replaced by beds of hot cinders. The iron grille work gate of the government offices was alone standing. There was no trace of the streets. Huge heaps of smoking ashes were to be seen on all sides.

CORPSES ARE HORRIBLY MUTILATED.

At the landing place some burned and ruined walls indicated the spot where the Custom House formerly stood, and traces of the larger shops could be seen. In that neighborhood hundreds of corpses were found lying in all kinds of attitudes, showing that the victims had met death as if by a lightning stroke. Every vestige of clothing was burned away from the charred bodies, and in many cases the abdomens had been burst open by the intense heat.

Curiously enough, the features of the dead were generally calm and reposeful, though in some cases terrible fright and agony were depicted. Grim piles of bodies were stacked everywhere, showing that death had stricken them while the crowds were vainly seeking escape from the fiery deluge. On one spot a group of nine children were found locked in each other's arms.

Most grewsome sights were at every side. The smoking waste of St. Pierre contained 30,000 corpses; most of these were naked and frightfully mutilated, while from the rapid decomposition of the bodies arose a terrible stench. On May 13 Mont Pelee was still in a state of eruption, but the winds were southerly and the smoke and ashes thrown out bore away to the north. This somewhat relieved the working force and made the examination of the ruins more possible.

THOUSANDS SUFFOCATED BY GAS.

It is supposed that an enormous puff of gas produced a great atmospheric pressure.

The formation of sulphuretted hydrogen gas doubtless caused thousands to die of sheer suffocation before the fire itself reached them. This explains the condition of the bodies, which are covered with superficial swellings and superficial burns caused by the great cloud of fire which followed the first gust of gas from the volcano.

After this there came a shower of stones, some as large as apples and consisting of pumice stone. Certain bodies showed the marks of wounds produced by this awful hail of rocks.

All the dead were covered by a layer of ashes ranging in depth from a few inches to a foot or more.

THRILLING STORY OF A PRISONER.

Raoul Sarteret, a prisoner who was found semi-suffocated but still alive in the dungeon of the city prison of St. Pierre, recovered sufficiently to describe what he could see of the eruption and the destruction of the town from the small grated window, which was the only opening in his cell.

"I was just eating my breakfast that morning," he said, "when the rumbling which I had heard beneath my cell for three or four days previously stopped suddenly. I do not know why, but I felt frightened, as though something fearful were to happen. Then the whole place became black, a sort of violet black, and I heard screams all through the prison.

"I could not help feeling that there was a disaster near and I screamed to the jailers to come and unlock my cell, but I could not make any one hear. The little window in my cell looked out on the back of the convent, where 200 girls and a large number of nuns frequently stayed, but there was a high wall between my cell and the convent.

"The violet darkness grew blacker and blacker, until it was almost as dark as though it were night, and then suddenly the whole place was lighted up with a curious glow, sometimes red, sometimes green, but generally red. I put my little table against the cell window and, hanging on by the bars, attempted to look out, but could not see anything because of the brick wall in front of me.

RED-HOT STONES STRIKE CITY.

"While I looked, however, a huge red-hot stone crashed down just in front of my window, right on the top of the wall, knocking it down. The heat from this stone was most intense and made my post at the window fearful to endure, but the sight was such that I could not turn away.

"Right in front of me where the brick wall had stood I saw the large convent, and I could see that molten matter had come down the hill and had run into the grounds of the convent. I realized then that there must have

been an eruption of Mont Pelee. To my horror I discovered that the lava had completely encircled the convent with its first rush and that all the girls and sisters who were in the building were doomed.

"While I looked I saw another stone, even larger than the one which had fallen near my cell window and broken down the wall, strike on the convent roof and crash through its three stories, evidently plunging through to the ground. I had not seen any of the sisters until that time, and I supposed they had depended for safety on the building, seeking shelter from the rain of hot ashes which I could see falling.

DESTRUCTION OF THE CONVENT.

"In an instant after this huge stone crashed through I saw the poor girls flocking out in the utmost terror. Their actions looked as though they were screaming in an agony of fright, but I could not hear a sound owing to the hissing of the lava and the roar of the volcanic discharge. As the girls came running out I saw that they carried with them bodies of those who had been injured by the crashing of the stone through the building. Some they carried out were dead, while I could see that others were only injured.

"The sisters came running out, too, bringing appliances for helping the injured, but those who had hurried out of the building were driven in again by the blinding ashes and the fumes which I could see rise from the lava.

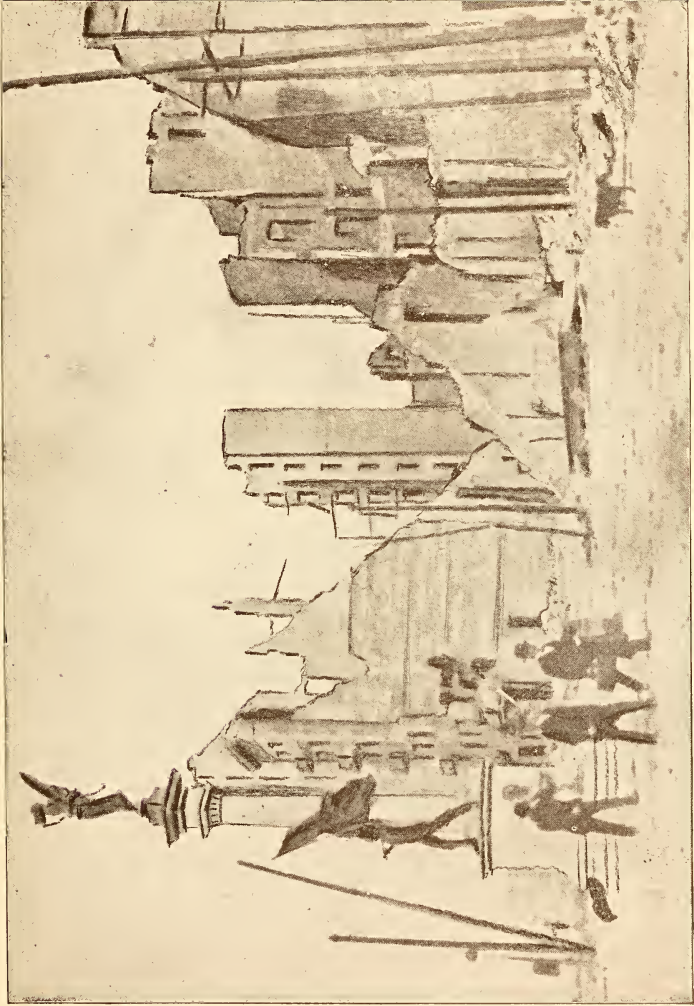
"A pit had been dug on the inside of the wall in order that none of the girls should be able to climb up from the inside, and this acted as a sort of moat, in which the lava floated, and thus made a complete circle round the convent, rendering escape impossible, even if it had been possible to live in the rain of hot stones and ashes from the mountain.

"Again as I looked I saw another stone fall upon the building, and this time many more of the girls rushed out. This time they were far fewer. A party of them broke down one of the doors, and, holding this over their heads, they tried to run for the gate, but were amazed to find their escape cut off by the river of lava.

SEES SCORES OF GIRLS PERISH.

"The lava gradually rose and rose, and I could see the huddled group of girls growing smaller and smaller, as first one and then others succumbed to the poisonous fumes and the fearful heat of the surrounding lava. And as the group got smaller the lava rose and rose, until there was but a small piece of land around the building where the ground was not a heaving, swelling mass of molten matter.

"Then with one great burst, it seemed to me, a fresh stream of lava flowed into the moat and overswept the building and the little island on which the girls were standing a moment before. I turned away my eyes in



Where the Fire made a Clean Sweep in the Heart of San Francisco.

horror, and when next I looked nothing was to be seen of the convent but a heap of calcined stone, and here and there the blackened corpses of those who but a few moments before had been full of life and hope.

"I could not see what was happening in the town for the reason that the window of my cell was so small and besides there was a pall of blackness over all the scene. I could, however, see here and there, as the smoke lifted, that the lava had extended clear down to the sea and that but a few of the larger buildings had successfully withstood the attack of the volcanic eruption.

"While I was looking from my cell window, my eyes almost seared out of my head by the heat through the narrow orifice, I noticed a thin blue smoke curl along the ground, and, caught by some eddying gust of wind, the fumes struck straight into my cell window, and I remember no more."

HEAT AND STENCH AWFUL.

The heat from the smoking, lava-covered ruins was suffocating and the stench from the corpse-strewn streets was awful.

On all sides were found portions of corpses, which were gathered up by the soldiers and gendarmes and burned on one of the public squares. Not a drop of water was procurable ashore.

The darkness caused by the clouds of volcanic dust shrouded the town and continuous subterranean rumbling added to the horror of the scene.

At the landing place some burned and ruined walls indicated the spot where the Custom House formerly stood, and traces of the larger shops could be seen. In that neighborhood hundreds of corpses were found lying in all kinds of attitudes, showing that the victims had met death as if by a lightning stroke. Every vestige of clothing was burned away from the charred bodies, and in many cases the abdomens had been burst open by the intense heat.

The most populous quarters of the town were buried under a thick layer of cindered lava, which apparently entirely consumed the bodies of the victims. But in the lower portions grim piles of bodies were stacked everywhere, showing that death had stricken them while the crowds were vainly seeking escape from the fiery deluge. In one instance an entire family of nine persons were found, all tightly locked in each others' arms, and the bodies in a horrible state of decomposition.

It was judged from the positions of the bodies that many were overcome almost before they realized the extent of the peril. Many of the bodies were in lifelike positions, as though death had come with a breath, as indeed must have been the case.

Identification was impossible in many cases, but in other cases there was no doubt as to the identified. Some were identified by the searching parties, which were under military control and conducted under orders.

BODIES BURNED WITH PETROLEUM.

Several steamers, including the government vessel *Rubis*, came from Fort de France to St. Pierre.

Almost the first thing done was to make preparations for the cremation of the dead. Fatigue parties of soldiers built enormous pyres of wood and branches of trees, upon which they heaped the dead bodies by scores, and burned them as rapidly as possible. To facilitate the combustion and to destroy as far as possible the frightful odor of burning flesh which came from them, the impromptu crematories were heavily soaked with coal tar and petroleum. All the dead were naked, their clothing apparently having burned from their bodies like so much tinder, while they themselves were roasted to death. In the vast majority of instances fire seems to have been the sole cause of death.

The terrible scenes witnessed by the burial parties were most heart-rending. Steps were taken to prevent disease from results of the disaster. Although burial parties worked night and day, it was impossible that the dead could be cared for as their friends would wish.

The only persons employed in burying the dead were a few small detachments of French soldiers. The negroes who survived the disaster could not be persuaded to help in the grewsome work. Fifty ghouls were captured.

ST. VINCENT IN BAPTISM OF FIRE.

The eruption of La Soufriere, on the British island of St. Vincent, was a disaster in itself, although not so terrible as that of Mont Pelee. From 3,000 to 5,000 were killed.

St. Vincent passed through a veritable baptism of fire, and with such fearful results as to rival the disaster of Mont Pelee and its environs with their thirty thousand victims.

Morne Soufriere had been in activity for nearly a fortnight, burying the inhabitants and vegetation in ashes. The havoc caused was so great that it is said that if a line were drawn dividing the island into halves there would in all probability be not one living being found north of it. The entire district was a smoking, incinerated ruin. Ashes were everywhere, in no place being less than two feet deep. Every Indian had disappeared. Not a sprig of green was to be seen on the island. Live stock had died. Houses had vanished. Rivers were dry and in their beds ran lava.

ERUPTION WATCHED BY SPECTATORS.

On the night of May 7 the lurid flames from Morne Soufriere were watched by the people of St. Lucia, and on the following night the *Wear*, a steamship of the Royal Mail Service, was held for three hours by a block of floating ashes while trying to make her way to Kingston.

When it finally reached Kingston at daybreak the next morning the

town was in a pitiable condition. Ashes two inches deep covered the streets, and a rain of stones was falling from the crater fifteen miles away, while the panic-stricken people were praying for deliverance.

Down through an old river channel flowed a stream of molten lava and emptied into the sea, with a hissing roar that could be heard for miles. This stream reached the sea within one hundred yards of Georgetown, and was carried by its own force a quarter of a mile beyond the water's edge.

Many new craters opened and closed near the summit of Morne Soufriere. For ninety years the volcano had been dormant, and a beautiful blue lake filled its crater, but for a number of days preceding this eruption the mountain had trembled violently and deep mutterings were heard within.

MEET DEATH IN AWFUL FORM.

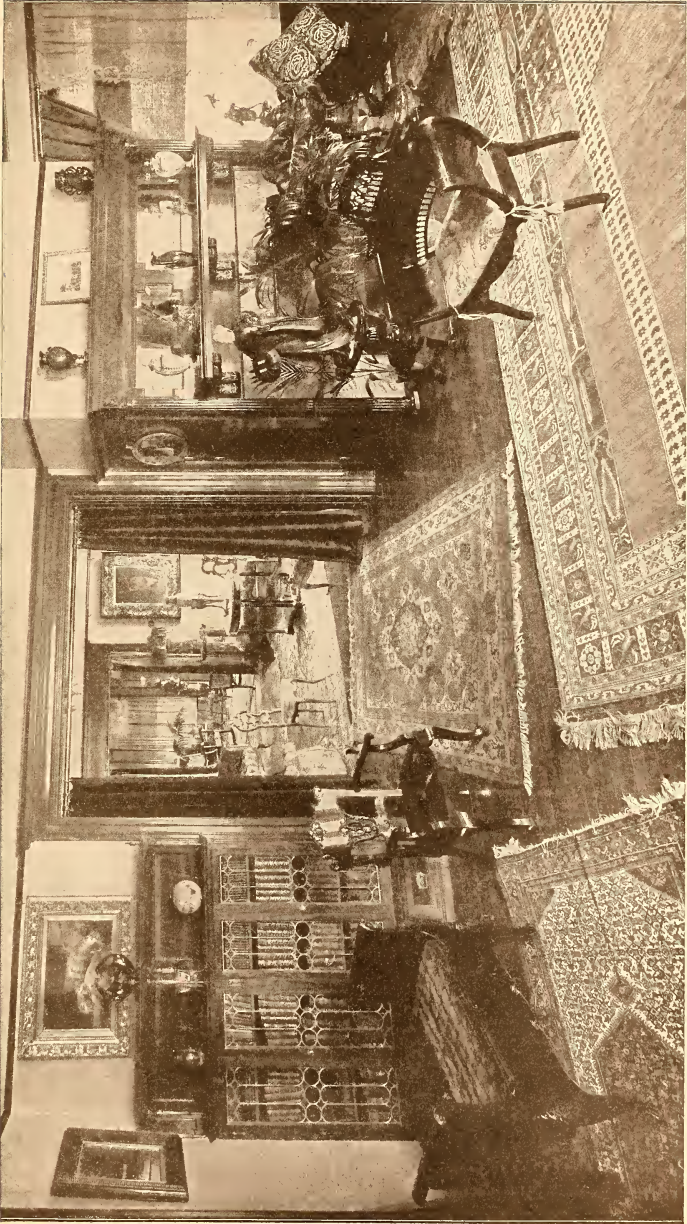
On Thursday morning, May 8, the same day as the Pelee outburst, a huge column of black smoke rose to the distance of eight miles above the crater. Ashes and rock and boiling lava deluged the island and ocean for miles around. It is believed that many of the victims were suffocated by the sulphurous gas before the white-hot lava reached them. The earth quaked continually.

At last came the climax. May 10 Soufriere suddenly opened, sending six separate streams of lava pouring and boiling down its sides. Death was everywhere and in its most terrible form. Lightning came from the sky, killing many who had escaped the molten streams overpouring into the valleys.

The lava destroyed several districts with their live stock. People fled to Georgetown, streams were dried up, and in many places a food and water famine threatened. The government fed numbers of sufferers from the outbreak.

The dead on St. Vincent, as on Martinique, were burned. St. Pierre never was rebuilt; the French government would not allow it. It was believed that gases caused nearly all the deaths on St. Vincent.

Quick relief was given the sufferers. The United States Congress appropriated \$200,000, American citizens gave as much more, and several millions were raised throughout the world.



Beautiful Residence Wrecked by the Earthquake.

CHAPTER XXVI.

GREAT EARTHQUAKES OF HISTORY.

List of Most Disastrous Seismic Disturbances—Shake-Up in Ancient Sparta—At Antioch—The Crash of 1755—Fifty Thousand Slain at Lisbon.

Destruction upon destruction is cried; for the whole land is spoiled.—Jer. 4: 20.

Earthquakes and volcanic eruptions are no new thing in the history of the world and thousands of lives have paid the toll. The following table shows the list of those known:

| Year. | Victims. |
|---|-----------|
| 79—Pompeii and Herculaneum destroyed | Thousands |
| 115—Antioch destroyed | Thousands |
| 557—Constantinople | Thousands |
| 742—Syria and Palestine, 500 towns ruined. | Thousands |
| 1137—Catania, Sicily | 15,000 |
| 1456—Naples | 40,000 |
| 1531—Lisbon | 30,000 |
| 1626—Naples | 70,000 |
| 1638—Calabria | Thousands |
| 1667—Schamaki (lasted three months) | 80,000 |
| 1693—Sicily (fifty-four cities and towns and 300 villages). | 100,000 |
| 1703—Jeddo, Japan | 200,000 |
| 1716—Algiers | 18,000 |
| 1726—Palermo | 6,000 |
| 1731—Peking | 100,000 |
| 1746—Lima and Callao | 18,000 |
| 1754—Cairo | 40,000 |
| 1755—Lisbon | 50,000 |
| 1759—Baalbec, Syria | 20,000 |
| 1773—Guatemala | 33,000 |
| 1797—Cuzco, Quito and other towns | 40,000 |
| 1812—Caracas | Thousands |
| 1822—Aleppo | 20,000 |
| 1851—Melfi, Italy | 14,000 |
| 1857—Kingdom of Naples | 10,000 |
| 1859—Quito | 5,000 |
| 1861—Mendoza, South America | 12,000 |
| 1863—Manila | 1,000 |
| 1869—Several towns in Peru and Ecuador. | 25,000 |

| | |
|---|-----------|
| 1872—Inyo Valley, California | 30 |
| 1875—Towns near Santander, on the border of Colombia..... | 14,000 |
| 1878—Cua, Venezuela | 300 |
| 1880—Manila | 3,000 |
| 1880—Illapel, Chile | 200 |
| 1881—Scio and several villages | 4,000 |
| 1883—Island of Ischia, Italy | 2,000 |
| 1883—Kракatoa and other Java volcanoes..... | Thousands |
| 1884—Severe shocks in England | 5 |
| 1884—Andalusia and other parts of Spain..... | 1,170 |
| 1885—Province of Granada, Spain..... | 690 |
| 1886—Charleston, S. C. | 41 |
| 1887—Riviera and southern Europe..... | 2,000 |
| 1891—Japan | 4,000 |
| 1893—Persia | 12,000 |
| 1894—Japan | 10,000 |
| 1899—Tiflis, Transcaucasia | 1,000 |
| 1902—St. Pierre, Martinique, eruption of Mont Pelee..... | 40,000 |
| 1902—Andijan, India | 2,500 |
| 1903—Syria | 50 |
| 1903—Tiojo, Colombia | 100 |
| 1904—Severe shocks in Abruzzi, Italy, violent quake at Lima, Peru, Wellington, New Zealand shaken..... | |
| 1905—North India | 35,000 |
| 1905—Calabria, Italy | 500 |
| 1905—Scutari, Albania | 200 |
| 1905—Shemakha, Caucasia | 300 |
| 1905—Tamazula, Mexico | 100 |
| 1906—Region about Vesuvius | 3,000 |

Earthquake in Sparta left only five houses in the city, B. C. 464.

One which made Euboea, in Greece, an island, 425.

Helice and Bura., in Peloponnesus, swallowed up, 373.

Duras, in Greece, and twelve cities in Campania buried, 345.

Lysimachia buried, about 283.

Ephesus overturned, A. D. 17.

One accompanying the eruption of Vesuvius which buried Pompeii, 79.

Great earthquakes in 105, 115, 126, 157, 358.

At Constantinople; edifices destroyed, thousands perished, 557.

In Africa many cities destroyed, 560.

Awful one in Syria, Palestine and Asia, more than 500 towns destroyed,
with immense loss of life, 742.

Constantinople overturned; all Greece shaken, 936.

England, 1809; Antioch, 1114.

Catania, in Sicily, overturned; 15,000 persons buried, 1137.

Lincoln, England, 1142.

Syria, 20,000 perished, 1158.

Calabria, a city, with its inhabitants, overwhelmed by the Adriatic Sea, September, 1186.

In Cicilia, 60,000 perished, 1268.

Greatest known in England, 14 November, 1318.

At Naples, 40,000 perished, 5 December, 1456.

Constantinople, thousands perished, 14 September, 1509.

At Lisbon, 30,000 lost, 26 February, 1531.

Naples, thirty villages ruined, 70,000 lives lost, 30 July, 1626.

Schamaki, 80,000 perished, 1667.

Port Royal, Jamaica, West Indies, 3,000 perished, June 7, 1692.

Sicily, fifty-four cities, 300 villages, 100,000 lives lost. Of Catania, with 18,000 inhabitants, not a trace remained, September, 1693.

Jeddo, Japan, ruined; 200,000 perished, 1793.

Pekin, 100,000 swallowed up, 1731.

At Grand Cairo half the houses and 40,000 people lost, 1754.

Kaschan, North Persia, 40,000 perished, June 7th, 1755.

The great earthquake at Lisbon, 50,000 lost, November 1st, 1755.

At Martinique, 1,600 persons perished, August, 1767.

Vesuvius overwhelmed city of Torre del Greco, June, 1794.

Santa Fe and Panama, 40,000 lost, 4 February, 1797.

New Madrid, in lower Mississippi, 1811.

Caracas, 12 March, 1812.

Aleppo destroyed, 20,000 perished, August and 5 September, 1822.

At Martinique nearly half of Port Royal destroyed; 700 persons killed and the whole island damaged, 11 January, 1839.

Manila much injured, 16-30 September, 1852.

In seventy-five years, from 1783 to 1857, the Kingdom of Naples lost 111,000 persons by earthquakes!

Java and Sumatra desolated by eruption of Krakatoa, August, 1883.

Slight shocks in United States, from Washington to New York, August 10, 11, 1884.

Charleston, S. C., 41 lives lost, August 31, 1886.

Formosa, two earthquakes in 1906, probably 20,000 lives lost and \$20,000,000 damage done.

EARTHQUAKE IN ANCIENT SPARTA.

The earthquake which shook the Peloponnesus of Greece in 464 B. C. was important in its political bearing, being in this respect similar to one twenty-two-hundred and seventy-six years later in far-away South America. This Grecian earthquake opened great chasms in the ground and rolled down huge masses from the highest peaks of Taygetus. Sparta itself became a heap of ruins, in



which not more than five houses are said to have been left standing. More than 20,000 persons were believed to have been destroyed by the shock, and the flower of the Spartan youth was overwhelmed by the fall of those buildings in which they were exercising and developing themselves into physical perfection.

The Helots of Sparta, especially those descended from the enslaved Messenians, took advantage of the confusion produced by the earthquake to rise in revolt. Having secured possession of Ithome, they fortified themselves in the town and withstood there a siege of ten years. The Spartans invited the Athenians to aid them in the siege, but soon grew jealous of their allies, dismissed them with some rudeness, and thereby sowed the seed of the all-important Peloponnesian war.

It is significant, however, that the clear-minded Spartans did not, like the Venezuelans of a supposedly more enlightened period, allow their priests to distort the great natural calamity into a supernatural terror.

EARTHQUAKES AT ANTIOCH.

Early in the year 115 A. D. Antioch, the splendid capital of Syria, was visited by an earthquake, one of the most disastrous apparently of all the similar inflictions from which that luckless city has periodically suffered. The calamity was enhanced by the presence of unusual crowds from all the cities of the East, assembled to pay homage to the Emperor Trajan, or to take part in his expedition of conquest to the East. Among the victims were many Romans of distinction. Trajan himself escaped only by creeping through a window, for the shaken earth is no respecter of persons, and as readily engulfs the master of the world of men as it does the meanest slave.

Again in 526, during the reign of Justinian, Antioch was the chief sufferer in the earthquakes which then, more than at any other period of history, were overwhelming the cities of the Roman Empire.

Antioch, the metropolis of Asia, was entirely destroyed on the 20th of May, 526, at the very time when the inhabitants of the adjacent country were assembled to celebrate the festival of the Ascension; and it is affirmed that two hundred and fifty thousand persons were crushed by the fall of its sumptuous edifices.

Twenty-five years later, on the coast of Phœnicia, the city of Berytus, modern Beirut, whose schools were filled with the rising spirits of the age, devoted chiefly to the study of the civil law, was destroyed, and with it many a brilliant young fellow, by earthquake, on the 9th of July, 551.

Gibbon describes thus the earlier earthquake of 365 A. D.: "In the second year of the reign of Valentinian and Valens, on the morning of the 21st day of July, the greater part of the Roman world was shaken by a violent and destructive earthquake. The impression was communicated to the waters; the shores of the Mediterranean were left dry by the sudden retreat of the sea. Then the tide returned with the weight of an immense and irresistible deluge, which was severely felt on the coasts of Sicily, of

Dalmatia, of Greece and of Egypt. The city of Alexandria commemorated the fatal day on which 50,000 persons lost their lives in the inundation."

In 1692 an earthquake of terrible violence laid waste in less than three minutes the flourishing colony of Jamaica. Whole plantations changed their place; whole villages were swallowed up. Port Royal, the fairest and wealthiest city which the English had yet built in the new world, renowned for its quays, its warehouses, and for its stately streets, which were said to rival Cheapside, were turned into a mass of ruins. Fifteen hundred of the inhabitants were buried under their own dwellings.

THE EARTHQUAKE OF 1755.

On the morning of the 1st of November, 1755, an earthquake was felt from Scotland on the north to mid-Africa on the south, and from the Azores on the west to Persia on the east, a region three thousand by four thousand miles in extent. In the north its effects, as usual with earthquakes in that region, were slight and few. The Island of Madeira was laid waste, and the ruin extended to Mitylene in the Greek archipelago. In Madrid a violent shock was felt, but no buildings and only two human beings perished. In Fez and in Morocco, on the contrary, great numbers of houses were shaken down, and multitudes of people were buried beneath their ruins. How many of the inhabitants of the Barbary States perished it is difficult to ascertain from European sources, for Christendom, in spite of its Great Teacher's injunction to love its neighbor as itself, does not count the dead unless they have white skins. Three hundred thousand Chinese dead in Haifong seem to affect us less than three hundred Americans or Europeans.

In the Krakatoa eruption the thirty-seven Europeans occasioned more distress than thirty-seven thousand men of yellow skin. It is probable, however, that the "great multitudes" of Arabs who perished in 1755 numbered twelve thousand.

FIFTY THOUSAND SLAIN AT LISBON.

But the widest and most fearful destruction was reserved for Lisbon, capital of Portugal, which had already, in 1531, been shaken down with immense loss of life. The population of the city was collected in the churches on the 1st of November, it being All Saints' Day. At 9 o'clock in the morning all the churches were crowded with kneeling worshippers of each sex, all classes and all ages, when a sudden and most violent shock made every church reel to its foundations.

Within the interval of a few minutes two other shocks no less violent ensued, and every church in Lisbon, tall column and towering spire, was hurled to the ground. Thousands and thousands of people were crushed to death, and thousands more grievously maimed, unable to crawl away and left to expire in lingering agony.

An Englishman, Mr. Chase, in a letter to his sister, published in Black-

woods Magazine in 1860, says that from his bedroom in the fourth story of an old house: "The most horrid prospect that imagination can figure appeared before my eyes! The house began to heave to that degree that to prevent being thrown down I was obliged to put my arm out of a window and support myself by the wall, every stone in the wall separating and grinding against each other (as did the walls of the other houses with variety of different motions) causing the most dreadful crunching, jumbling noise ears ever heard. * * * I thought the whole city was sinking into the earth. I saw the tops of two pillars meet, and I saw no more." He was thrown to the ground from the fourth story, terribly mutilated, endangered by the ensuing fires, but finally escaped to give the world the most vivid impression of the great disaster.

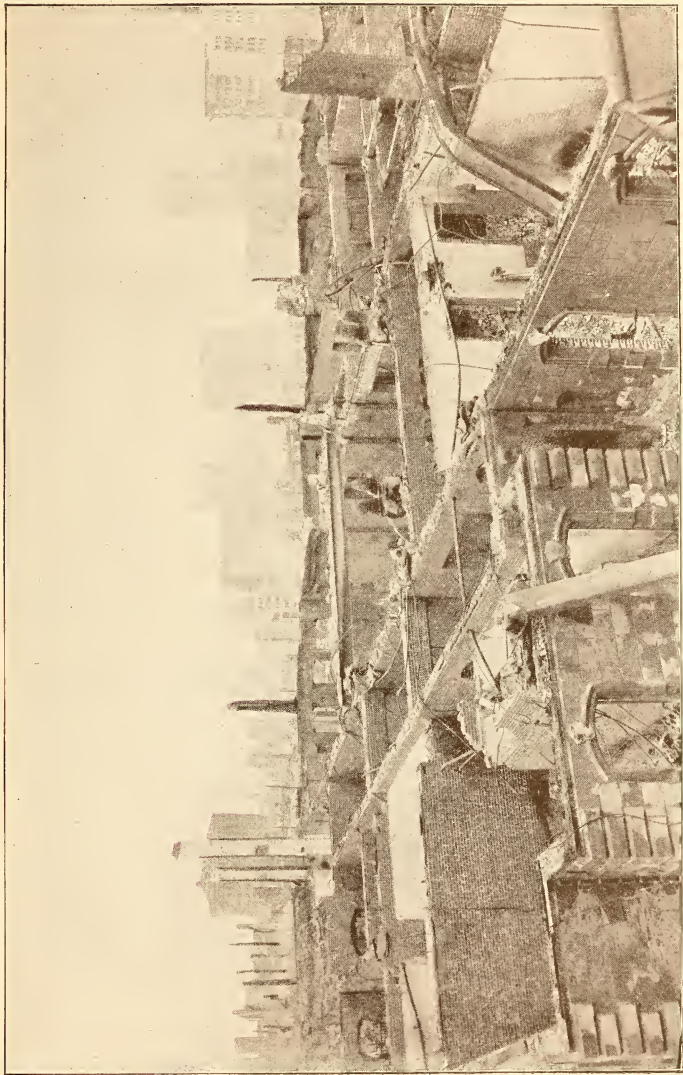
The more stately and magnificent the church on that All Saints' Day the more fearful and widespread was the ruin it wrought. About one-fourth of all the houses in the city toppled down. The encumbered streets could scarce afford an outlet to the fugitives; "Friends," says an eye witness, "running from their friends, fathers from their children, husbands from their wives, because everyone fled away from their habitations full of terror, confusion and distraction." The earth seemed to heave and quiver like an animated being. The sun was darkened by the clouds of lurid dust that arose. Frantic with fear, a headlong multitude rushed for safety to a large and newly built stone pier which jutted out into the Tagus, when a sudden convulsion of the river bottom turned the pier bottom uppermost, like a ship on its keel in a tempest, and then engulfed it. Of all the living creatures that thronged it—full three thousand, it is said—not one, even as a corpse, ever rose again.

TIDAL WAVE OVERWHELMS.

From the banks of the river other crowds were looking on in speechless affright, when the river itself came rushing in upon them in a torrent, though against wind and tide. It rose at least fifteen feet above the highest spring tides, and then again subsided, drawing in or dashing to pieces everything within its reach, while the very ships in the harbor were violently hurled about, earth and water alike seemed let loose as scourges upon the devoted city.

"Indeed, every element," said a person present, "seemed to conspire to our destruction, for in about two hours after the shock fires broke out in three different parts of the city, occasioned by household goods and kitchen fires being jumbled together."

At this time also the wind blew into a fresh gale, which made the fires spread in extent and rage with fury during three days, until there remained but little for them to devour. Many of the maimed and wounded are believed to have perished unseen and unheeded in the flames; some few were almost miraculously restored after being for whole days buried where they fell, without light or food or hope. The total number of deaths was com-



What was Left of a Block of Homes in San Francisco.

puted at the time as about thirty thousand. Other estimates give fifty and even a hundred thousand, but until our own careful age reports of earthquakes commonly exaggerated the loss of life.

EARTHQUAKE AT VENEZUELA.

On the 26th of March, 1812, Venezuela was visited by a fearful earthquake, of which the political effect was even more important than the physical. The capital, Caracas, and several other towns, were destroyed, together with 20,000 people. Many others perished of hunger and in other ways, even as some of the people of Martinique perished, and as more would have perished had it not been for the prompt assistance of the United States and other nations. But the 26th of March, 1812, was Holy Thursday; and the superstitious people, prompted by their priests, believed the awful catastrophe wrought by the forces of nature to be a visitation and judgment from God upon them for their revolt against their Spanish masters, whose rule the congress of their provinces had thrown off. The Spanish troops, under Monteverde, began a fresh attack upon the disquieted Venezuelans. The revolutionary leader, Miranda, head of the army, had overrun New Granada and laid the foundation of the future United States of Colombia. But the face of affairs was changed by news of the earthquake. Smitten with despair, his soldiers deserted to the royalists; he lost ground everywhere; the fortress of Puerto Cavello, commanded by the great Bolivar, then a colonel in the service of the republic, was surrendered through treachery, and three months after the earthquake, Miranda himself was obliged to capitulate with all his forces, and Venezuela fell once more into the hands of the Royalists.

Lest we of the United States should flatter ourselves that our nation is superior to such childish superstition, we should remind ourselves that in our cities and throughout our land the Second Adventists long solemnly affirmed and vehemently preached that the eruption of Mont Pelee was but the beginning of the destruction of the world for supernatural purposes.

CHAPTER XXVII.

WORLD'S DISASTERS FROM WIND.

Cyclones: Their Cause and Effect—Hurricanes—Hearn's Graphic Story—Tornadoes—How They Differ from Other Storms.

This know also, that in the last days perilous times shall come.—II Tim, 3: 1.

In enumerating the world's disasters, it may not be out of place to stop and briefly glance at the terrible havoc wrought by windstorms, their immediate cause and the danger attending them.

First under the head of windstorms may be mentioned whirlwinds. These are most frequent in the desert, where the earth is level, the heat extreme, and the air at rest. Whirlwinds occur during the day, when the sun has warmed the earth and the earth in turn has warmed the lower strata of air, the atmosphere becoming cooler as its altitude from the earth increases. The air is also denser and heavier at the earth's surface because the attraction of the earth pulls it down, causing the upper air to rest upon the lower.

Scientific research shows that whirlwinds are caused mainly by heat. The high temperature and density of the lower air disturbs the equilibrium, hence the whirl. The height and distance to which the whirl extends depend upon circumstances, the location and the opposition it meets. In regions not flat, the lower air flows in from the slopes as it becomes heated and the whirl is gradually destroyed.

Whirlwinds frequently become of great size and do great damage, the air in motion carrying light objects upward to a height of thousands of feet. The whirling is usually accompanied by a roaring sound, and the narrower the path the faster the motion and the louder the noise. The desert sand storms often swallow up whole caravans, hence have come to bear the name of "devil" from the evil way in which they come and go and the destruction they bring about.

CYCLONES, CAUSE AND EFFECT.

Cyclones are somewhat similar in effect to whirlwinds, but their cause embraces new elements. Besides level surface and intense heat, they are influenced by the earth's rotation and the condensing of vapor. The cyclones of the Bay of Bengal have been studied with great care, and meteorologists are a unit in concluding they arise much as the desert whirlwind does—in a place of heat and quiet. The calm that precedes a cyclone is always noticeable; the air is close and oppressively warm; the water all around is smooth and peaceful.

The greater the calm and composure and the longer the preparatory stage, the more fearful the storm. This calm is in fact the embryo of the cyclone.

Cyclones which take place in the tropics are attended by heavy rain due to

the vapor condensing at the center and falling to the earth. When on sea, cyclones often last for days and do untold damage.

The regions encompassed by cyclones are the seas south and east of India and China, in the location of the West Indian Islands, around Madagascar and near Australia. They invariably run westward near the equator, then turn to the pole and obliquely turn eastward again.

A remarkable feature regarding cyclones is that no violent ones have so far occurred within 400 miles of the equator, this being due to the earth's rotation, which at this point is zero. There would be no violent storms if the earth stood still.

HURRICANES.

The origin of a hurricane is not fully settled. Its accompanying phenomena, however, are significant to even the casual observer. A long swell on the ocean usually precedes it. This swell may be forced to great distances in advance of the storm and be observed two or three days before the storm strikes. A faint rise in the barometer may be noticed before the sharp fall follows. Wisps of thin cirrus cloud float for 200 miles around the storm center. The air is calm and sultry until a gentle breeze springs from the southeast. This breeze becomes a wind, a gale and, finally, a tempest, with matted clouds overhead, precipitating rain and a churning sea below throwing clouds of spume into the air.

Here are all the terrible phenomena of the West Indian hurricane—the tremendous wind, the thrashing sea, the lightning, the bellowing thunder, and the drowning rain that seems to be dashed from mighty tanks with the force of Titans.

But almost in an instant all these may cease. The wind dies, the lightning goes out, the rain ceases, and the thunder bellows only in the distance. The core of the storm is overhead. Only the waves of the sea are churning. There may be twenty miles of this central core, a diameter of only one-thirtieth that of the storm. It passes quickly, and with as little warning as preceded its stoppage the storm closes in again, but with the wind from the opposite direction, and the whole phenomena suggesting a reversal of all that has gone before.

The cyclone is confined to a narrow track and it has no long-drawn-out horrors. Its climax is reached in a moment. The hurricane, however, grows and grows, and when it has reached to 100 or 120 miles an hour nothing can withstand it.

No storm possible in the elements presents the terrors that accompany the hurricane.

HEARN'S GRAPHIC STORY OF HURRICANE.

No more graphic portrayal of the hurricane is found in literature than that of L'Isle Derniere by Lafcadio Hearn, which we here reprint:

"One great noon, when the blue abyss of day seemed to yawn over the world more deeply than ever before, a sudden change touched the quicksilver smoothness of the waters—the swaying shadow of a vast motion. First the



A View of San Francisco Three Hours After the Earthquake.

whole sea circle appeared to rise up bodily at the sky; the horizon curve lifted to a straight line; the line darkened and approached—a monstrous wrinkle, an immeasurable fold of green water moving swift as a cloud shadow pursued by sunlight. But it had looked formidable only by startling contrast with the previous placidity of the open; it was scarcely two feet high; it curled slowly as it neared the beach and combed itself out in sheets of woolly foam with a low, rich roll of thunder. Swift in pursuit another followed—a third, a feebler fourth; then the sea only swayed a little and stilled again.

“Irregularly the phenomenon continued to repeat itself, each time with heavier billowings and briefer intervals of quiet, until at last the whole sea grew restless and shifted color and flickered green—the swells became shorter and changed form. * * *

“The pleasure-seekers of Last Island knew there must have been a ‘great blow’ somewhere that day. Still the sea swelled, and a splendid surf made the evening bath delightful. Then just at sundown a beautiful cloud bridge grew up and arched the sky with a single span of cottony, pink vapor that changed and deepened color with the dying of the iridescent day. And the cloud bridge approached, strained and swung round at last to make way for the coming of the gale—even as the light bridges that traverse the dreamy Teche swing open when the luggermen sound through their conch shells the long, bellowing signal of approach.

“Then the wind began to blow from the northeast, clear, cool. * * * Clouds came, flew as in a panic against the face of the sun, and passed. All that day, through the night, and into the morning again the breeze continued from the northeast, blowing like an equinoctial gale. * * * * *

“Cottages began to rock. Some slid away from the solid props upon which they rested. A chimney tumbled. Shutters were wrenched off; verandas demolished, light roofs lifted, dropped again, and flapped into ruins. Trees bent their heads to earth. And still the storm grew louder and blacker with every passing hour. * * * * *

“So the hurricane passed, tearing off the heads of prodigious waves to hurl them a hundred feet in air, heaping up the ocean against the land—upturning the woods. Bays and passes were swollen to abysses; rivers regorged; the sea marshes changed to roaring wastes of water. Before New Orleans the flood of the mile-broad Mississippi rose six feet above highest water mark. One hundred and ten miles away Donaldsonville trembled at the towering tide of the Lafourche. Lakes strove to burst their boundaries; far-off river steamers tugged wildly at their cables, shivering like tethered creatures that hear by night the approaching howl of the destroyer.”

Statistics show the number of hurricanes in the West Indies in the last 400 years to be about an average of one a year. More than three-fourths of these have occurred during the months of July, August and September. The balance of the trade winds breaks the force by friction and they are thus destroyed. Cyclones, once formed, are carried westward toward the West Indies.

They then move a little to the northwest and strike the United States, doing little or no damage according to the force. This undoubtedly explains the destruction of Galveston in the year 1900.

TORNADOES—HOW THEY DIFFER FROM OTHER STORMS.

Tornadoes differ from other storms in their excessive violence, their restricted area and their rapid advance. They are most numerous in Kansas, Missouri and Illinois. Their greatest frequency is in the afternoons of May, June and July. Quiet and calm usually precede them. Their advance is to the northeast and at the rate of thirty miles an hour. When first observed they are usually a dark, funnel-shaped, mass hanging from dark clouds. A roaring sound is heard all along the track. Within its funnel various objects may be detected which have been snatched from the ground in transit. At varying heights these objects are thrown out of the current and dropped with violence. There is seldom time to escape their track, yet one should make every effort to do so, provided he keeps his presence of mind. Usually the storm has come and gone before those in its path have had time to think.

The wind during the tornado often travels 100 miles an hour. In the trail of the storm's path strange freaks of nature are often seen, clothing is torn to rags, doors split to atoms, wheat driven many feet into the ground; sister trees standing side by side, a few feet apart, one taken, the other left. The track averages only about one-half mile in width and the greatest destruction is frequently done within a hundred feet.

An illustration of the damage by these storms is thus given by an eyewitness: A family, in attempting to save their lives, instantly rushed out of the house. The mother was carried three hundred yards, thrown against a barn and killed; a boy of seven years was unharmed, the father and baby killed, and the house, a small frame building, was picked up and carried a half mile away and carefully set down as though nothing had disturbed it. But stranger still, it frequently happens that in houses where the windows and doors have been closed, the house explodes; roofs are carried away, doors and windows broken outward, showing that the heated air makes its own way of escape.

CHAPTER XXVIII.

MYSTERY IN VOLCANOES.

Millions of Lives the Toll—Awful List of Active Volcanoes—Light Shed on Mystery—
Pompeii Eclipsed—Careful Study Made—Pacific Dotted with Volcanoes—Active Six
Years at a Time—Many in United States.

But the day of the Lord will come as a thief in the night in the which the heavens shall pass away with a great noise, and the elements shall melt with fervent heat, the earth also and the works therein shall be burned up.—II Peter 3: 10.

Mont Pelee, Krakatoa, Bandaisan, Asama, Mauna Loa, Vesuvius, Tacoma! Why not say these titles are inscriptions on gigantic human graves, rather than names of vent holes of smothering Mother Earth?

Each name, after the geologists and seismologists have all had their say, but stands for the blotting out of vast aggregations of humans—people who slept at night and in the dawn died under a rain of fire, ash and boiling mud.

Volcanoes are nature's steam boilers, as erratic and irresponsible under extraordinary high pressure as any tubular affair of man's inclosed in the sheathing of a modern locomotive.

Yet men are still so far removed from understanding that warm, pulsating nature above and in which they live, that they gasp when a mountain head blows up and shudder when the sky rains bloody ash. Ignorantly, hopefully they build granary and vineyard under the shadow of craters and close to the vent holes of earth's steam chests and laugh when science cries "Beware!"

WARNINGS OF SCIENCE IGNORED.

The world has had warning enough of eruptions and quakes to know, if it would heed, that whatever the actual inner condition of the earth be, eruptions and quakes are as certain to come as the sun after a storm. Within a radius of 500 miles of the very Mont Pelee region, now so afflicted, science records the following seismic events:

Six eruptions in the sixteenth century.

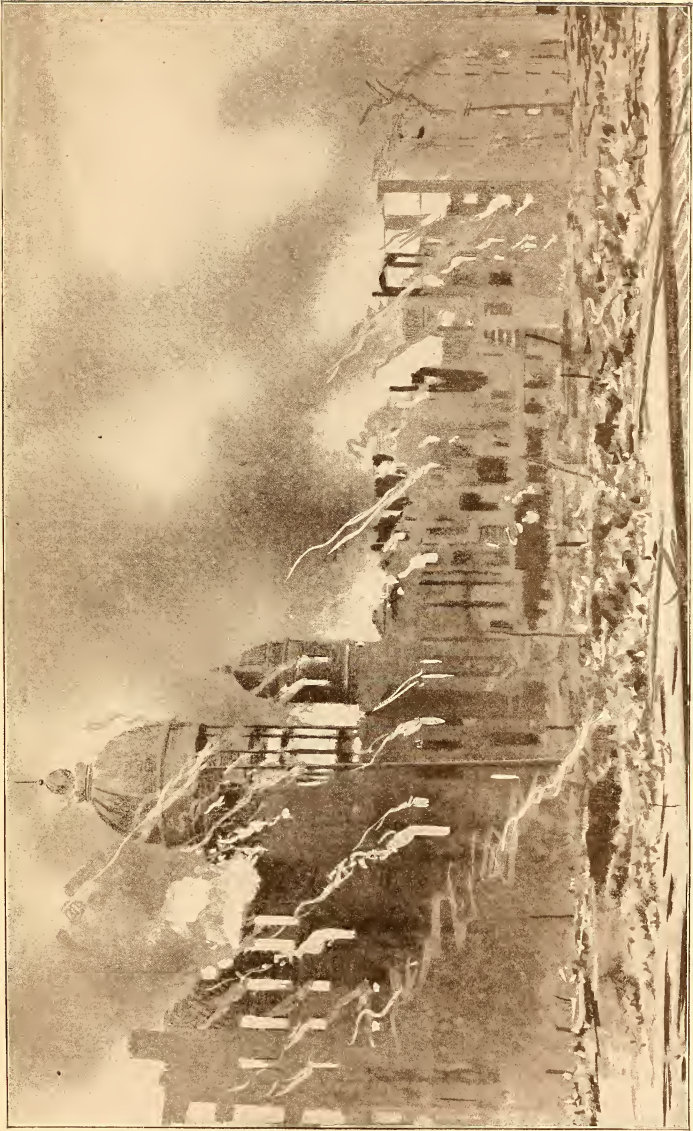
Eleven in the seventeenth century.

Seventeen in the eighteenth century.

Seventeen in the nineteenth century.

Has there been any reason to suppose that staid, sober, dark-hued Pelee would not sooner or later follow the example of her sisters of the volcanic belt that encircles the Caribbean and has one arm ending at Fuego and another in the arctic regions? Shall it longer be doubted that Atlantis sunk in such a cataclysm to make way for the now America?

Masaya vomited forth in 1522. Pacaya in 1565, Fuego five times between



The Fire Destroying What the Earthquake Left.

1581 and 1623, Irazu in 1623, Momotombo in 1764, Quemado in 1785, San Miguel in 1844, Masaya in 1858, Ilopango in 1880, Ometepe in 1883. Bandaisan was silent for centuries, and Krakatoa. Yet all these have unquestioned intimate connection with the vents, the boiling mass of Pelee, the unfortunate.

Ciudad Vieja was engulfed by an earthquake in 1541, San Salvador in 1575, Antigua Guatemala in 1586, eastern Salvador in 1765, Cojuepeque in 1857, Amatlán in 1862, Patzitsia in 1874—why not St. Pierre in 1902?

MILLIONS OF LIVES ARE LOST.

A volcano and a volcanic region are good things to let alone—to keep free from permanent settlement. Zorion estimates (1891) that since earthquakes and volcanic eruptions were first recorded by man more than 13,000,000 people have lost their lives through them. The property damage inflicted at the same time can never be estimated. It must extend into the billions of dollars.

Take a map of the Barbadoes, Bermudas, the West Indies, Central America, and ask a geologist of note or a traveler of judgment where in the region there is freedom from volcanic action and quakes. He will rub his nose and ask for a larger map, and then, beginning at Terre del Fuego far to the south, make dots all the way north to Salvador, east to the Indies and west to the Pacific, and then north again through the Rockies, and Sierra Nevadas to the Selkirks, and then on to the arctic regions, and he will say:

“All I have dotted came from the depths by volcanic action or quakes, and that it should return by the same action is not only not impossible but probable. If the earth is cooling within, the process so far has been so slow that cessation from quakes and eruptions must be yet a million years away.

“I confidently expect that the major part of the continents of the world, these United States, Asia, Europe, will be destructively altered over and over again before the earth reaches the last stage of solidity prior to again becoming gaseous.”

AWFUL LIST OF ACTIVE VOLCANOES.

If he is inclined to be loquacious he will hold up his fingers and begin to count and name:

“In Salvador alone, there are Tacuba, Apaneca, Santa Ana, Izalco, San Salvador, San Jacinto, Cojuepeque, San Vicente, Tecapa, Usulután, Chinameca, San Miguel, Conchagua, Chingo, Gussapa, Matarra, Cacaguatique, Gotera, Sociedad, all living volcanoes, all earth vents, of sufficient power when roused to make living mortals think the jaws of hell have opened for their reception. They are the warm, throbbing footstool of Mexico and the United States. In the United States, Hood is still smoking, and far to the north St. Augustine, which must have exploded ages ago, will certainly erupt in the years to come. Martinique has had its face changed, perhaps almost obliterated. Very well, why should not continents be thus changed? What did Bandaisan do?”

On July 15, 1888, Bandaisan, having slept for ages, hurled a cloud of flame

and smoke to the Japanese sky. Then her head blew off, and sent, according to Professor Milne, sixteen hundred million cubic yards of rock and earth into the valley beneath.

Cut this lava into chunks each the size of an ordinary street car and the train furnished would have been long enough to have encircled the earth five times—125,000 miles.

If these fragments had been blown into great shells as large as the largest ship afloat, with a displacement of 15,000 tons each, they would, if floated end to end, have bridged the Pacific from San Francisco to Yokohama.

When Bandaisan vented her wrath on the earth a river of agglomerate poured down the valley at the rate of forty-eight miles an hour, and in twenty minutes had spread itself to a depth of 100 feet over a region from twelve to fifteen miles long and from five to seven miles wide. If New York City had been in that valley, or Chicago, 90 per cent of the population would never have had time to escape. As it was only 401 persons lost their lives, because there were only 401 present when Bandaisan started.

Bandaisan changed a Japanese landscape of green into one of brown, burying houses and fields. Where no lake had been one was created by the damming of a mountain stream. This lake grew so rapidly that the peasants in its vicinity abandoned farming and took to fishing. The bowlders which were hurled from the volcano weighed four and five tons each, and had been hurled eight and ten miles from the crater. Professor Milne declares they fell with the velocity of a falling star.

LIGHT SHED ON AWFUL MYSTERY.

The best explanation or answer to the question ever given was prepared by Professor John Milne. He said:

“The eruptions that build up mountains are periodical wellings over of molten lava, comparatively harmless. The eruptions accompanied with violent explosions occur irregularly and bring widespread destruction. It is easy to see in the building-up process how each streaming over of lava makes a mountain grow; each fresh outgush hardens as it pours, and forms a fresh shell of lava for other shells to form on.

“And, finally, when a certain height is reached—one, two, three miles—we may suppose the impelling force beneath no longer equal to the task of lifting this great column and the crater crusts over at the top; and so generations pass, and men, with their short lives and shorter memories, say that the volcano is dead.

“But the fires are there at the core, so much latent energy ready to be stirred; and if something stirs them it is like rousing a thunderbolt. The fact that the natural vent above is blocked with the coolings of centuries only makes the discharge the more terrible when it comes, just as hard-rammed bullets make powder more effective.

"The cause that rouses the volcano's latent energy is the same that makes a boiler burst—the sudden and excessive generation of steam when the hot part of the volcano comes in contact with water. This contact may be due to various causes, as, for instance, the readjustment of strata or materials beneath, so that a lake or water course is turned into the crater. It may even be due to an irruption of the sea, as at Krakatoa in 1883."

LAVA DOES NOT ALWAYS FOLLOW.

The professor was asked:

"Does molten lava never come out in one of these violent explosions?"

"Sometimes it does, sometimes it does not. It did in 1783, when Asama, a Japanese volcano, blew its head off, and the lava track may still be seen along the face of the mountain like a huge black serpent. But in cases like that the lava does not well out; it is driven out by the steam, just as rocks are driven out.

"When no lava comes out the mud river gets the liquid to make it flow partly from steam and partly from water it absorbs from springs and streams in its course. The mud river from Asama, for instance, lapped up two ordinary rivers as it went, so that no sign of them appeared thereafter.

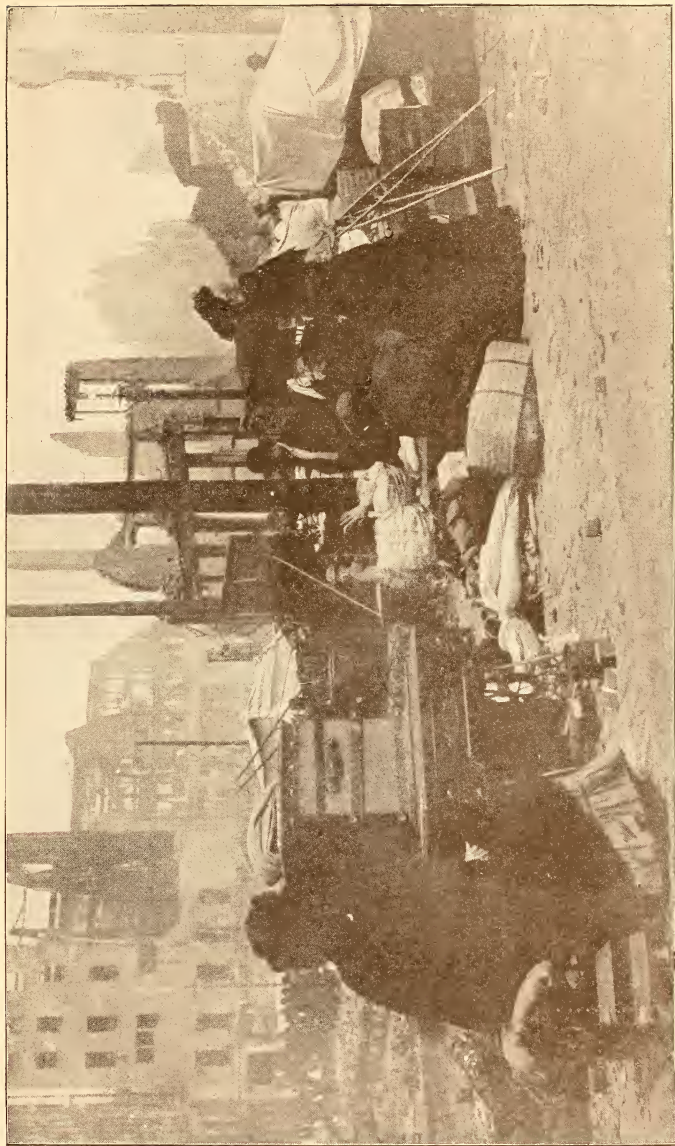
"There are volcanoes in the world at present, in Europe, in the United States, in England, that will one day or another blow their heads off, although there is no telling when they will do it. England has at least a dozen basal wrecks of volcanoes, mostly in the western Highlands, regarded as extinct, but Bandaisan has shown us what 'extinct' volcanoes will do. An 'extinct' volcano is very much like an old rusty gun—it may be loaded."

FORTY-TWO VILLAGES OVERWHELMED.

Landgrelle, an authority, regards the explosion of Asama, Japan, in 1873, as one of the most frightful eruptions in the history of volcanoes. Asama rises to a height of over 8,000 feet, and in its great paroxysm it sent down a river of mud from five to ten miles broad that overwhelmed forty-two villages.

In some places the mud was so hot it did not stop boiling for twenty-four days. In the Tonezawa River immense masses of lava remained red hot even in the river itself. In Kurogano a stone 120 by 264 feet, one among many, fell in a river and formed an island. Two rivers were sucked up into the mud torrent and their places taken by dry land, and the noise of the explosion was like a thousand thunders. The lakes were poisoned and fish sickened, the rivers were full of dead dogs, deer and monkeys, with hair singed from their bodies.

The crater of Asama as it stands to-day measures a mile and a quarter in circumference and never ceases to belch forth pungent, strangling odors of hydrochloric acid and sulphurous anhydride, to breathe which is to die. The depth of the crater as now constituted cannot be determined. It is supposed to be 8,000 feet to the bottom of its cup.



Homeless People in the Streets of San Francisco.

POMPEII DISASTER ECLIPSED.

The eruption of Vesuvius, by which Pompeii was destroyed, was a comparatively petty affair as compared with the performances of Bandaisan, Krakatoa and Mauna Loa. Mont Pelee and Soufriere, like the Krakatoa of 1883, have been obscure earth vents, but Pelee took more lives than Vesuvius and wrought more destruction.

Mont Epomeo of Ischia is one of the volcanoes of the world classified as extinct that was dormant 1,700 years and then exploded in 1302. Cosequina of Nicaragua cast forth such clouds of ashes in 1835 that utter darkness prevailed thirty-five miles distant and eight miles from the crater the ground was covered to a depth of ten feet. Some of the ashes fell at Kingston, Jamaica, 700 miles away.

Cotopaxi hurled a 200-ton boulder nine miles one summer's day. Mauna Loa belched forth a solid fountain of lava 1,000 feet wide and 900 feet high. The largest volcano in the western world is Popocatepetl, 19,643 feet high. Tacoma, 15,000 feet high, is the largest volcano in the United States. It is "supposed" to be extinct, but only a few days before the dreadful catastrophe at San Francisco signs of activity were noted, and by some scientists this activity is connected with the San Francisco horror.

VOLCANOES A FASCINATING STUDY.

Scientists have dared death in its most appalling forms in order to study volcanoes actually at work, in the hope of snatching from them the secret of their being. Thus in the year 1767 Sir William Hamilton dared the terrors of Vesuvius in one of its most violent eruptions in order to question it in scientific fashion of its phenomena and their cause.

The volcano had been throwing out dust, scoria and gigantic "bombs" for months. It was hazardous in the extreme even to approach it. Yet so greatly did the scientific eagerness to know dominate Sir William's mind that he boldly went up the mountain to the highest point attainable. Fortunately for science he went on the day when the great outburst of lava occurred, and at fearful risk to himself he saw what happened.

"On a sudden, about noon," says Sir William, "I heard a violent noise within the mountain, and at a spot about a quarter of a mile off the place where I stood the mountain split; and with much noise from this new mouth a fountain of liquid fire shot up many feet high, and then, like a torrent, rolled on directly toward us. The earth shook at the same time that a volley of pumice stones fell thick upon us. In an instant clouds of black smoke and ashes caused almost total darkness; the explosions from the top of the mountain were much louder than any thunder I ever heard, and the smell of the sulphur was offensive. My guide, alarmed, took to his heels, and I must confess that I was not at my ease. I followed close, and we ran nearly three miles without stopping. As the earth continued to shake under our feet I was apprehensive of the opening of a fresh

mouth, which might cut off our retreat. I also feared that the violent explosions might detach some of the rocks off the mountain of Somma, under which we were obliged to pass; besides the pumice stones, falling upon us like hail, were of such a size as to cause disagreeable sensations."

CAREFUL STUDY MADE.

Besides such risky study—including the late Professor Palmieri's daring life residence near the lip of the crater—science has prosecuted other and laborious researches into the causes of volcanic action. Careful calculations have been made to determine where the heat might come from, until we now know almost exactly how much rock must be pulverized by pressure in order to produce the temperatures of 2,000 degrees to 3,000 degrees Fahrenheit, which have been found in the craters.

Yet we do not know to-day with any sort of certainty or satisfaction what it is that causes volcanic action. There are many scientific theories, but each of them has been challenged by scientific criticism which apparently it cannot endure.

For ages it has been recognized as a giant chimney, built by the actions of subterranean fires. Likewise these chimneys have been associated always with contiguous salt water. As to the conditions which control these chimneys giving vent to the fires of an under world, speculation has been rife for a thousand years. In general, superheated steam under the earth's crust is regarded as the active agent in a volcanic eruption. With most volcanoes, active or extinct, standing in proximity to sea water, the connection of steam with the phenomenon has been easy. Accounting for the subterranean fires has been the task.

PACIFIC OCEAN DOTTED WITH VOLCANOES.

Taking the map of the world, one sees the margins of the Pacific as well as its mighty bed to be the home of the volcano. All down the eastern coast of Asia and extending out into the tropical islands of the south Pacific is a continuous chain of volcanoes, active within recent times; across the north Pacific, from Alaska to Kamschatka, are the craters in the Aleutian Islands, forming almost a bridge over the Pacific, and from Alaska down the western coast of North and South American continents is a string of the mightiest volcanoes in existence.

Iceland is a seething caldron under its eternal snows, and in a hundred places where some great, jagged cone of a volcano rises, seemingly dead and lifeless, only a firebrand in the hand of nature may be needed to awaken it to a fury like that of which its vast lava beds, pinnacles, and craters are so eloquent.

In general, those volcanoes which have had longest periods of rest between eruptions have been most violent, and as a rule those cones sending out ashes are of the worst type. The theory of a long quiescent volcano breaking out with such renewed force is that the vent in the crater becomes choked by cooling rock until, when some sudden burst of steam forces an eruption, the whole top of the cone may be blown away.

VOLCANOES OF ICELAND.

As to the extent of an eruption of a great volcano, Skaptan Jokul, in Iceland, in 1783 made one of the world's records.

The eruption began on June 11 of that year, having been preceded by violent earthquakes. A torrent of lava welled up into the crater, overflowed it, and ran down the sides of the cone into the channel of the River Skapta, completely drying it up. The river had occupied a rocky gorge, from 400 to 600 feet deep and averaging 200 feet wide.

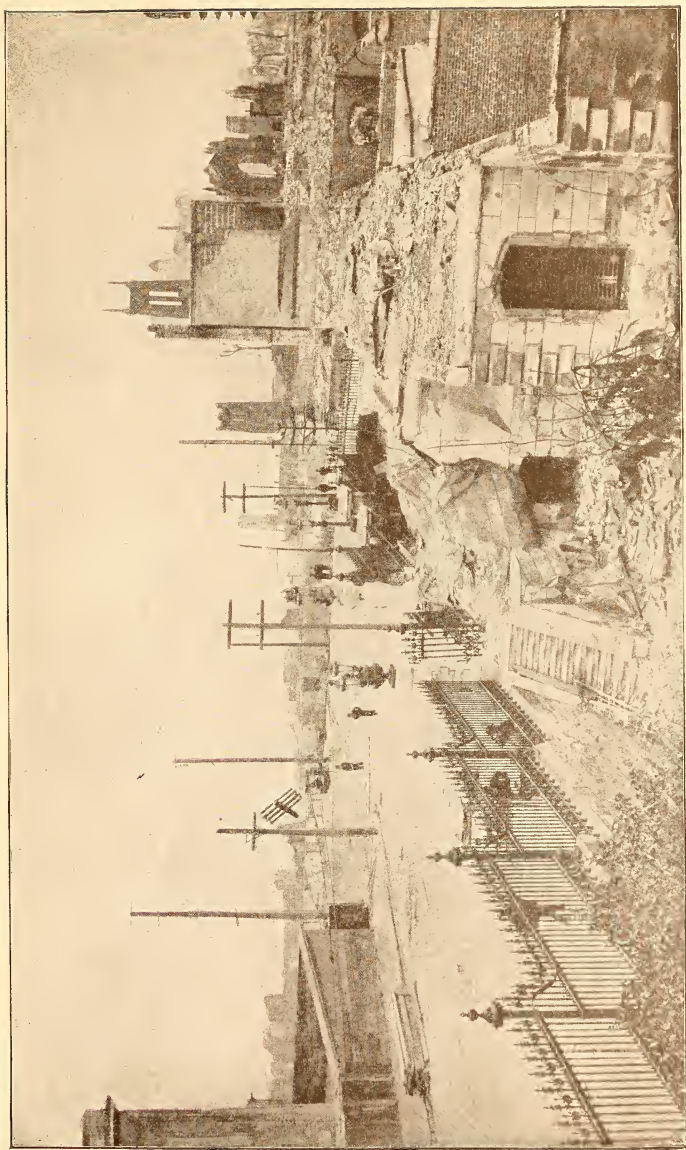
This gorge was filled, a deep lake was filled, and the rock, still at white heat, flowed on into subterranean caverns. Tremendous explosions followed, throwing bowlders to enormous heights. A week after the first eruption another stream of lava followed the first, debouched over a precipice into the channel of another river, and finally, at the end of two years, the lava had spread over the plains below in great lakes twelve to fifteen miles wide and a hundred feet deep.

Twenty villages were destroyed by fire, and out of 50,000 inhabitants nearly 9,000 perished, either from fire or from noxious vapors. The Skapta River branch of this lava stream was fifty miles long and in places twelve to fifteen miles wide; the other stream was forty miles long, seven miles broad, and the range of depth in each stream was from 100 to 600 feet. Professor Bischoff has called this, in quantity, the greatest eruption of the world, the lava, piled, having been estimated as of greater volume than is Mont Blanc.

MANY ERUPTIONS OF HECLA RECORDED.

Mount Hecla stands isolated and snow clad about twenty miles from the southwest coast of Iceland. Its principal crater when visited by Sir George MacKenzie was about one hundred feet deep, and contained a large quantity of snow in the bottom. There are many secondary craters near the summit. The sides of the volcano are broken by numerous deep ravines, forming channels for mountain torrents produced by the melting of the snow. The view from the summit is very desolate and wild. Fantastic groups of hills, craters and lava, leading the eye to distant, snow-covered jokuls; the mist rising from a waterfall; lakes shut in bare, bleak mountains; an awful and profound slumber, lowering clouds; marks all around of the most destructive of the elements, give to the region a character of desolation scarcely to be paralleled.

No wonder the Icelandic sagas are grim and their gods terrible! The old civilization of Iceland has preserved the record of the eruptions of Hecla since the tenth century. Of these there have been forty-three, always very violent and generally continuing for a considerable time. One of the most tremendous occurred in 1783, when the immense quantity of lava and ashes ejected laid waste a large extent of country. The internal fire remained as if exhausted and was quiescent till September, 1845, when with terrific energy it again burst forth and continued active for more than a year. It poured forth a torrent of lava which two miles from the crater was a mile wide and forty or fifty feet



Ruins of a Beautiful Residence District, San Francisco.

deep, and the fine dust from this eruption fell on the Orkneys, four hundred miles away.

ACTIVE FOR SIX YEARS AT A TIME.

Iceland, as one of the hotbeds of volcanic energy, presents in marked manner the ills that come upon a district which suffers from volcanic eruptions. Hecla has been known to be active for a period of six years at a time. While throwing out its vapors, fumes, and solids, the people of the island contiguous to the volcano have verged upon starvation. Their principal food supply comes from their fisheries and from their cattle. As to the fishing, it is practically destroyed because of the vast amount of hot lava that is discharged into the sea and because of the activity of boiling springs which pour hot water into the neighboring ocean.

As for the cattle, they suffer in a most peculiar manner. The ashes and pumice stone are thrown to great heights and settle in great clouds upon the pastures. Aside from this making the grass tasteless, the cattle, in trying to eat in pasture, take the ashes and fine pumice into their mouths. This cuts the enamel from their teeth, finally leaving the brutes in such misery that they cannot eat the grass that is there for their sustenance, and they die of slow starvation. On many occasions Denmark has been called upon to aid the Icelanders in such emergencies.

PERIL IN THE UNITED STATES.

Though in the geologic minute or second during which white men have lived in the United States there have been no great volcanic catastrophes such as have overwhelmed districts of our neighbor, Mexico, there are volcanoes in the United States. Though they are supposed to be extinct, history has proved that the term "extinct" is only relative; that cones which for ages have seemed dead suddenly have broken out with all the furies of the under world. Etna, for instance, had been classed as active in the Odyssey, while for a thousand years before 79 A. D. Vesuvius had been regarded as extinct. In that year it burst forth in a manner to force the story of it to the end of history. In the years in which Vesuvius was quiet the volcanoes on the Island of Ischia, forming one of the arms of the Bay of Naples, and known to have belonged to the Vesuvian chain, were active; after the stupendous outbreak of Vesuvius in 79, however, these volcanoes slumbered for 1,700 years. To all appearances they were extinct, when, after all these centuries, they became active again.

With reference to these volcanoes and this volcanic district, other vents were open in this 1,700 years, and earthquakes were of frequent occurrence. This would tend to show that the volcanic conditions were still in existence and more or less potent. To-day, speaking of extinct volcanoes, those of the Andes in South America seem to be most certainly of this class. But no one in the scientific world to-day has the temerity to say just where is the volcanic cone that is dead past all awakening.

MANY VOLCANOES IN UNITED STATES.

Regarding the volcanoes of the United States proper, Mount Shasta, in California, is one of the most interesting of them. It has an altitude of 14,350 feet, towering more than a mile above its nearest neighbor. Four thousand feet of its peak are above timber line, covered with glaciers, while the mountain's base is seventeen miles in diameter. Shasta is almost continually showing slight evidences of its internal fires.

Another of the famous cones is that of Mount Hood, standing 11,225 feet, snow-capped, and regarded as extinct as a volcano. Other peaks are Mount Baker, Mount Tacoma (Rainier), Mount St. Helens, Mount Adams, Mount Jefferson, Three Sisters, Mounts Mazama, Scott, Union, Pitt, Lossen Peak, Spanish Peaks, and Mount Taylor.

As to the volcanic records of the great West, they may be read in the great chains of mountains that stretch from Alaska, 10,000 miles to Terra del Fuego. In the giant geysers and hot springs of the Yellowstone Park are evidences of existing fires in the United States, while as to the extent of seismic disturbances of the past, the famous Lava Beds, in which Captain Jack, the Modoc Chief, held out against United States troops till starved into submission, are volcanic areas full of mute testimony regarding nature's convulsions. These lava beds are mazes of intricate passages in the rocks, formed by the processes of cooling and settling.

MISSISSIPPI VALLEY FREE.

In general the Mississippi Valley is not interested in vital ways concerning the volcano or its earthquaking accompaniment. It is conceded that the valley of the Mississippi had its experiences with molten lava long before recorded time, and the glacial drift has buried most of it hundreds of feet below the level of the city of Chicago. In the Lake Superior country, however, in the copper and iron deposits of the region, are to be found the evidences of volcanic heat among the rocks. Thus, lacking anything approaching a vent or cone the valley of the great river may be regarded as fairly secure from a possible eruption, however little the modern scientist claims to know of the phenomena.

Concerning the possible eruption of one of our own volcanoes, Mr. H. T. Cleveland writes as follows:

I stood one morning on the summit of Mount Hood, some 11,000 feet above the sea's level. Hood is a volcano, not extinct, although long silent—so long that on the cascades about her the pine trees have risen for ages and the whole valley and gorge to Portland is a mass of verdure and bloom. An Italian friend with me commented on how much more beautiful the scene was than at Vesuvius, and I made the half-jesting remark:

“No lava will ever again disturb this spot.”

Our half-breed guide looked at me incredulously, and when we began our descent called attention to the rings of sulphur smoke rising from what I suppose would be called the ‘mother crater.’ We drew as near to the edge as we

dared and laid down, and a throbbing within the bosom of the peak was distinctly heard. It might be described as the sound of a far-away train coming through the hills with a continual roar of effort.

"Some day," said my friend, "Hood will lift her crown of snow and hurl it into the distant ocean; she will fill this gap through which the Columbia cuts and create an inland sea; she will shower fire and destruction on Portland and the towns of this green valley, and the survivors of that day will wonder why they never thought of such horror before."

Perhaps he was right. The same was said of Pelee years ago and has come true. But we descended into the valley and we came to Portland, and from City Park we looked back to the beautiful head of Hood, pink in the sunset, and my imaginative companion exclaimed:

"I should like to stand here when that day of fire comes and witness it—and escape."

DANGER IN ALASKA.

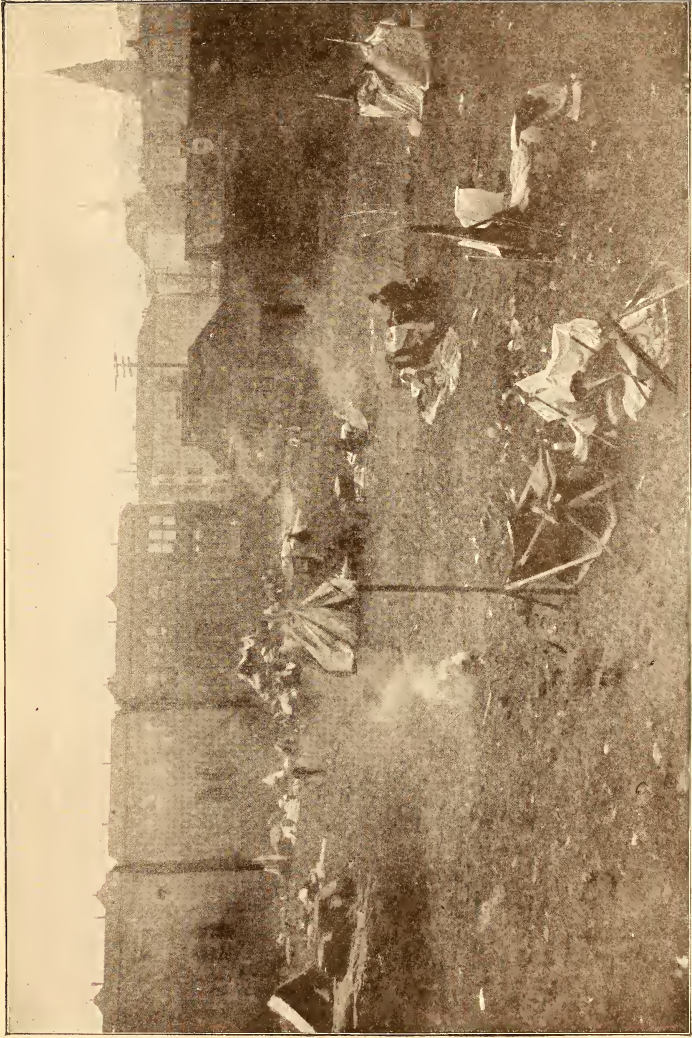
Scientists hold to the opinion, though, that St. Augustine in the Alaskan region is much more likely to blow its head off before Hood or Tacoma do. If we can trust outward signs it is several thousand years since Hood or Tacoma spoke, but St. Augustine is always in a state of disturbance, and recent seismic shocks in her vicinity would indicate that the pressure is growing too great for her and that she will within near time blast out the present physical features of her region and make new outlines.

As to the West Indies group, scientists agree that fire and quake originally created them, and that the convulsion also formed the Caribbean Sea, gave Florida a lusty leg and heaped up Salvador and the Central American chain. Resting as these regions do on gases and fire, built up on thin crust, close by where waters of ocean and internal fires of earth may meet, it is not unreasonable to believe that within early time (as earth-making goes, a century or so) all that has been there will not be.

ASHES IN UNALASKA.

It seems only natural that while there are volcanic disturbances in the West Indies there should be similar happenings in Central America. What is felt in the islands might well be felt in the adjacent mainland. The coincidence need occasion no alarm.

It is a little bit different, however, with the trouble at Unalaska. Unalaska is one of the Aleutian Islands. It is about 7,000 miles from Martinique. It is far enough away to deserve exemption from the effects of that catastrophe in the underworld which has wrought such havoc on the surface. It seems, however, that for some time the westerly winds have brought to Unalaska a deposit of fine ashes, as if from a volcano. Also, the island has been itself shaken by earthquakes. One can hardly believe that the eruptions in any part of the world of late have been great enough to send ashes to any unusual distance.



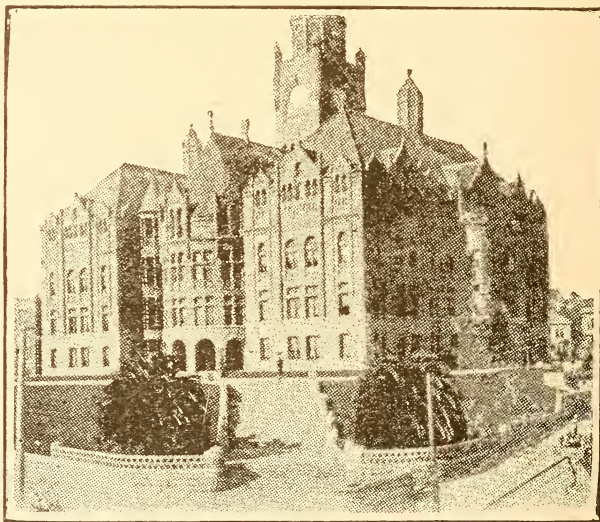
People Afraid to Go into Their Houses After the Earthquake in San Francisco.

ASIAN VOLCANO MAY BE ACTIVE.

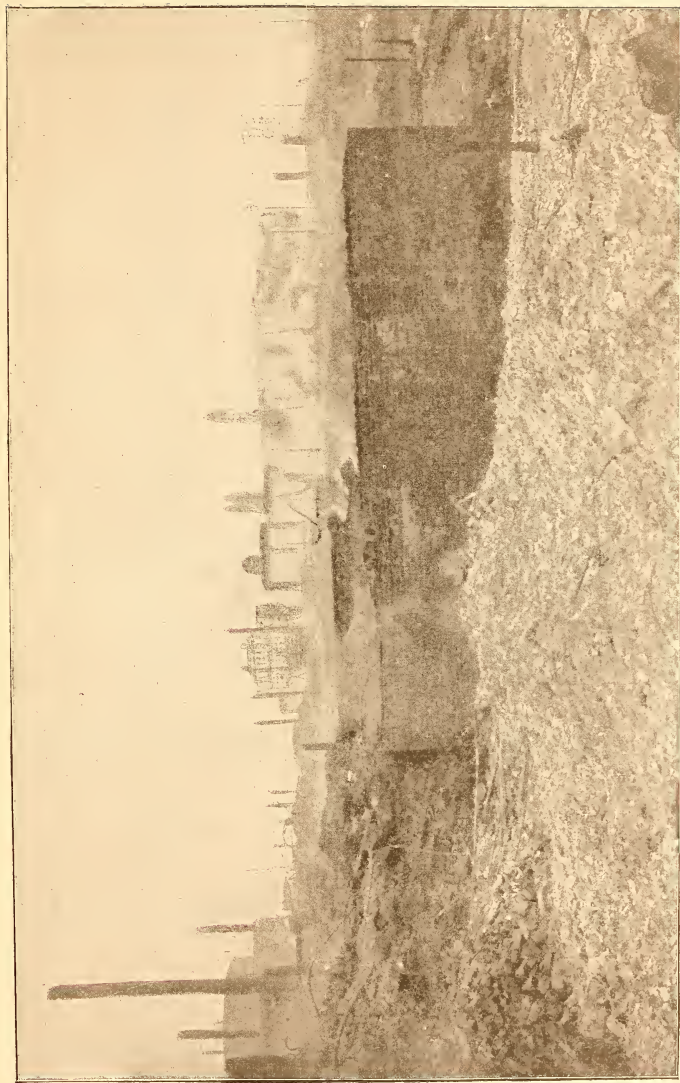
The deposits in Unalaska were made before the eruption in Martinique. It must be that some volcano in northeastern Asia has been roused to exceptional activity. It is true that when in 1883 the Island of Krakatoa was broken to pieces by a discharge of volcanic matter the ashes were carried all the way around the earth and resulted now in a kind of continuous twilight and again in sunsets of extraordinary beauty.

The phenomena at Unalaska are probably caused by disturbances purely local. A volcano in Kamschatka could well send ashes along the Aleutian Islands. The way in which Sahara dust travels up into Norway proves that. If, then, there is a renewal of volcanic activity in northeastern Asia, the question presents itself whether there is any connection between the volcanoes of that part of the world and the volcanoes of the West Indies.

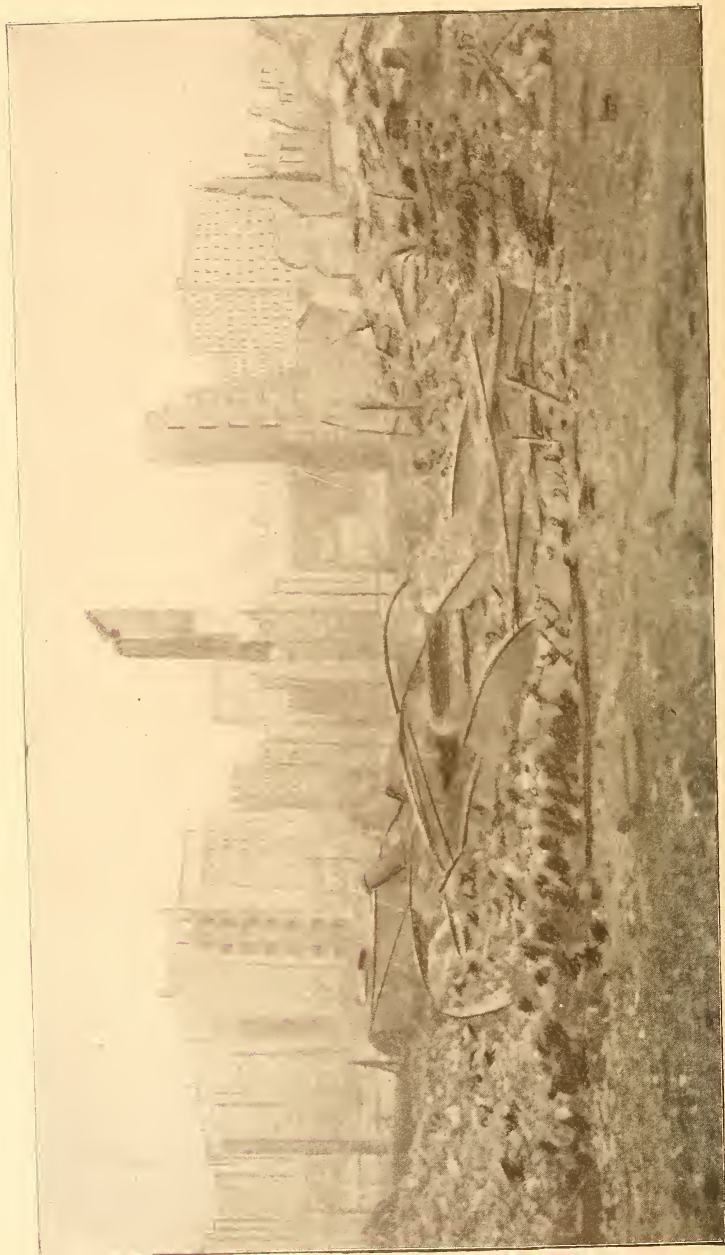
If the right answer to this question is the affirmative, people who are living in the intervening districts are rather directly concerned. If the monster forces of the interior of the earth have a kind of rendezvous from which they issue now to this and now to that aperture, the dangers of a general convulsion are largely increased.



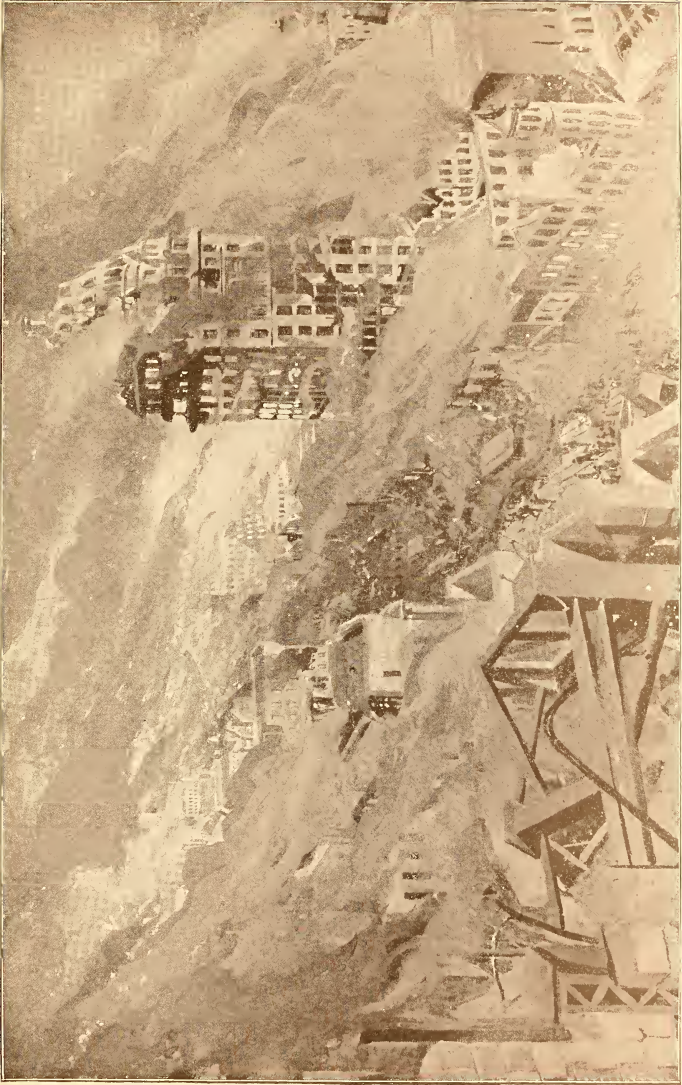
THE CITY HALL, AND COURT HOUSE IN LOS ANGELES.
Badly Shaken.



A Section of San Francisco Completely Wiped Out by Earthquake and Fire.



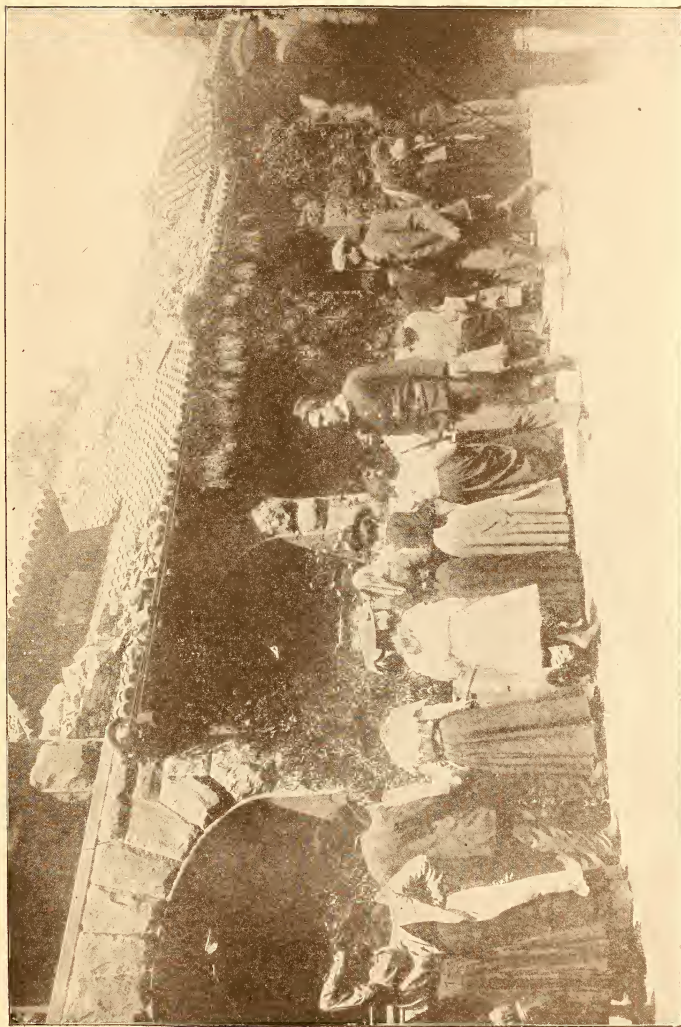
Part of the Business District of San Francisco After the Earthquake and Fire.



Earthquake, Fire and Confusion in San Francisco.



Camping Out in San Francisco After the Earthquake Had Destroyed Her Home.



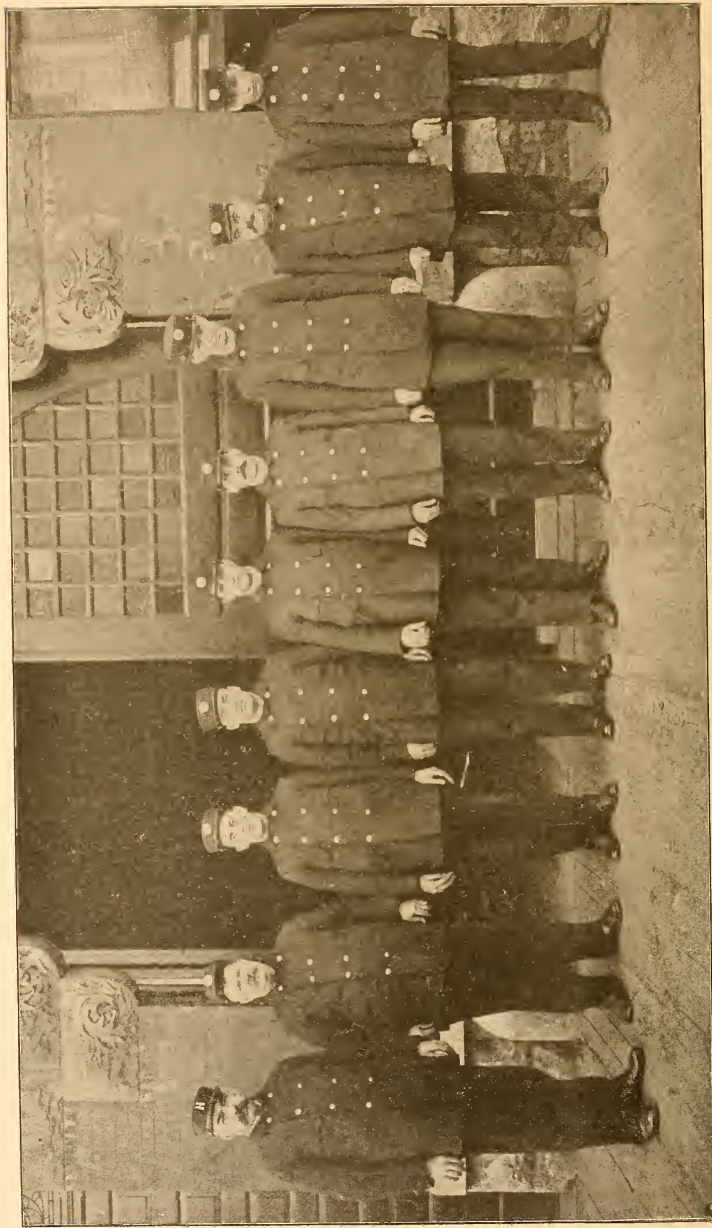
Standing in the Bread Line in Golden Gate Park.



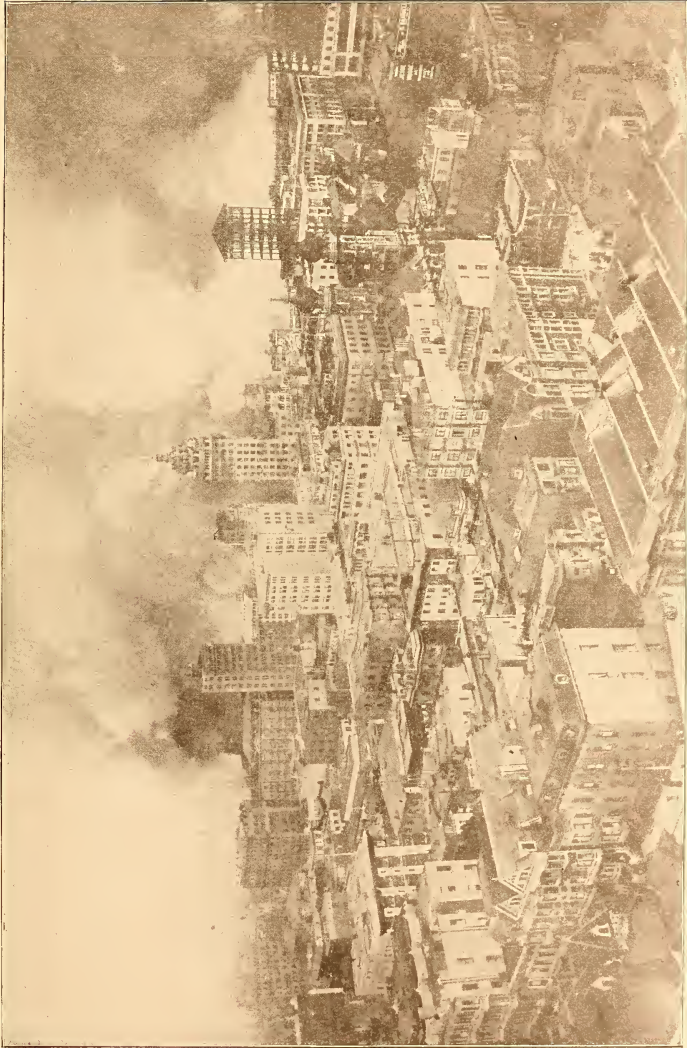
Homeless People of San Francisco Rich and Poor Alike at One Table.



Showing How the Earth was Torn Asunder by the Force of the Earthquake.



The Official Fire Fighters of San Francisco, Who Worked Until They Dropped Exhausted.



When the Fire First Started in San Francisco.



People of All Nations Gathered Together in Golden Gate Park After the Earthquake.



A View Down One of the Principal Business Streets of San Francisco a Week After the Earthquake.



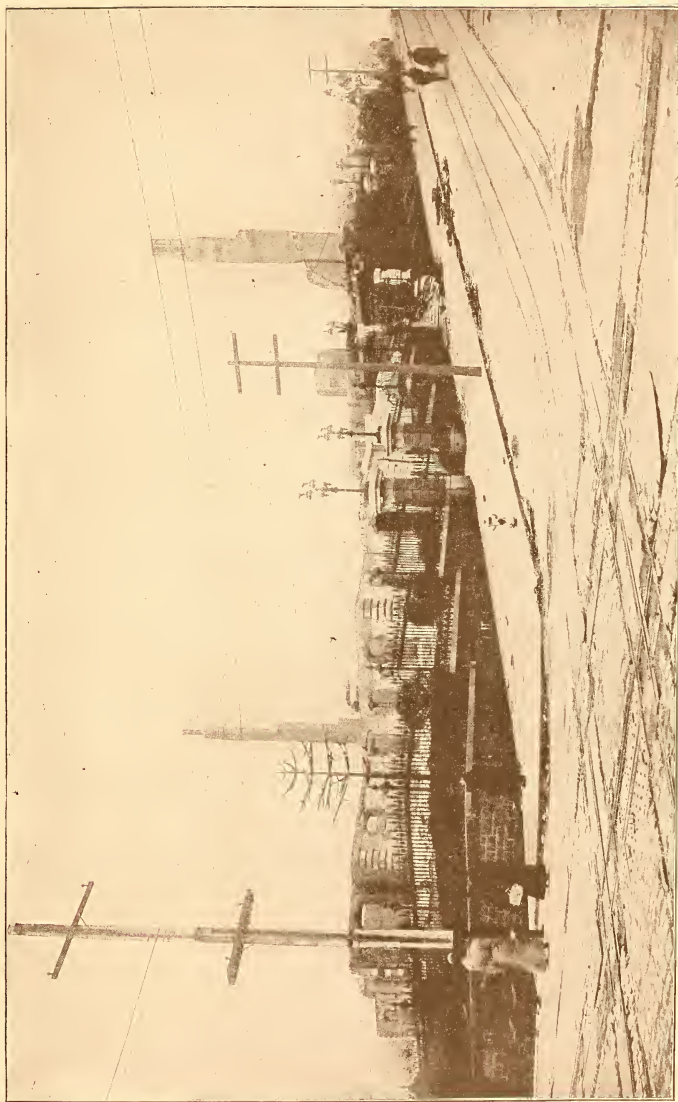
Smith's Cash Store, Market Street Near Ferry Building. Six Story "Fire-Proof" Building.



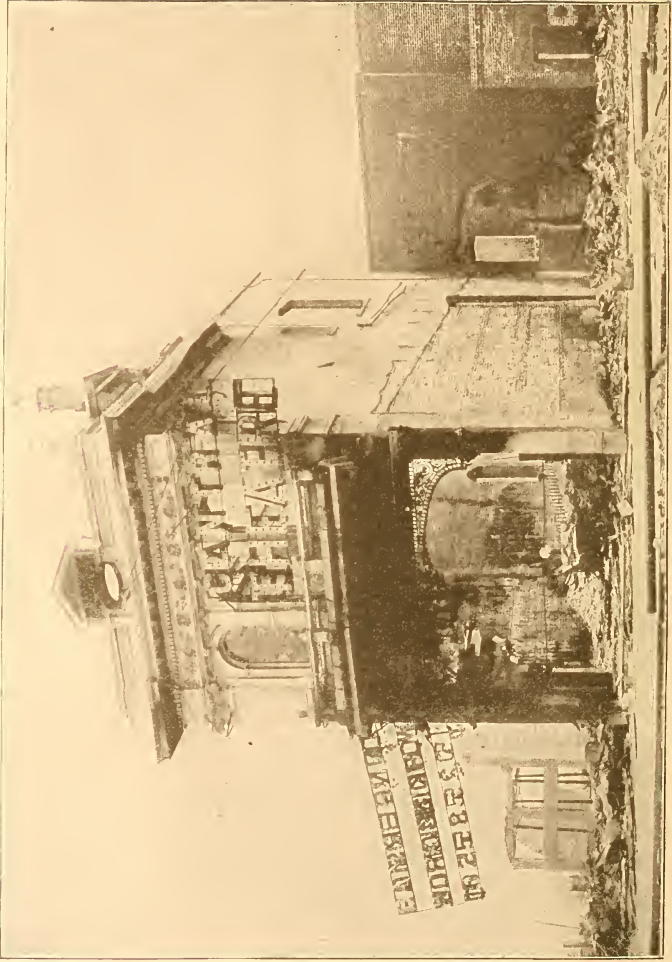
Looking North on Kearney Street Near Market.



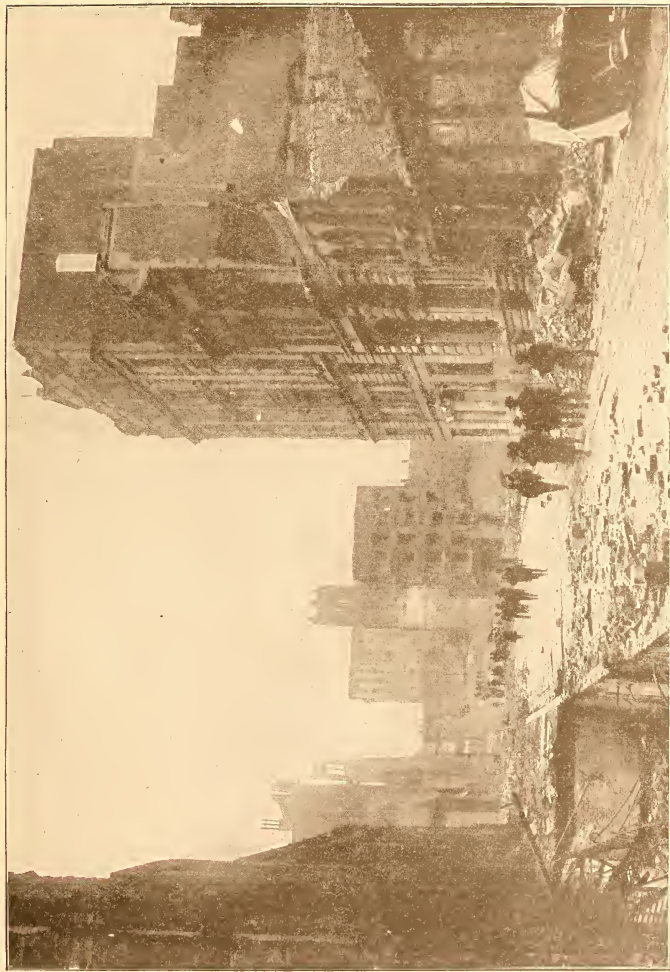
Terminus Hotel, North Side Market Near Stewart. Eight-Story Hotel Recently Opened.



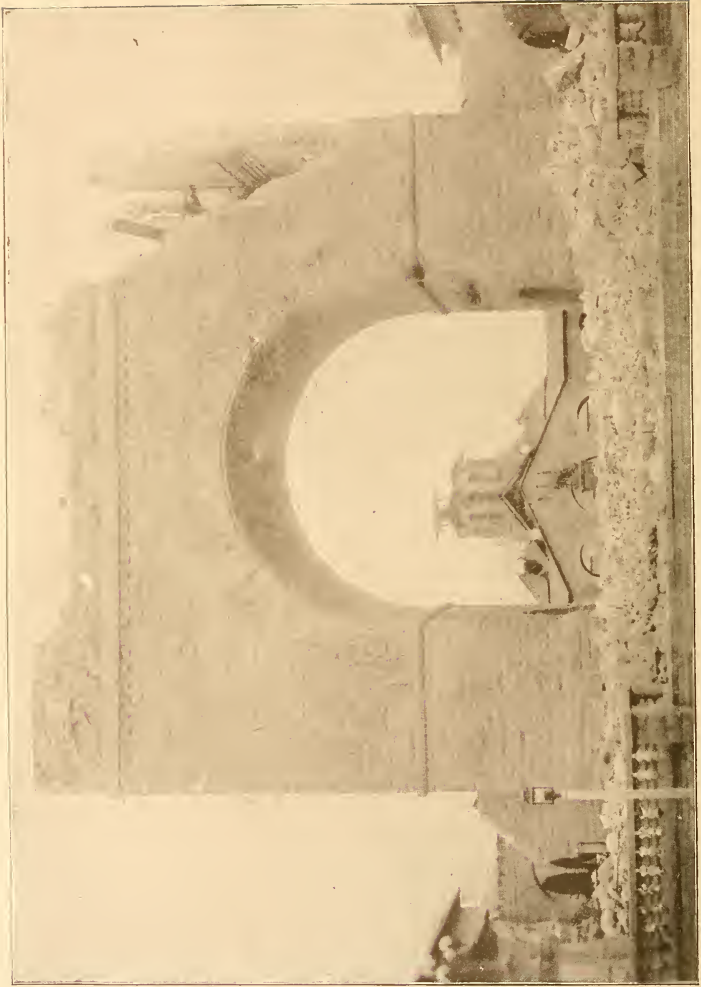
California and Powell Streets, Ruins of Crocker Mansion in Foreground, Hopkins Institute of Art in Distance.



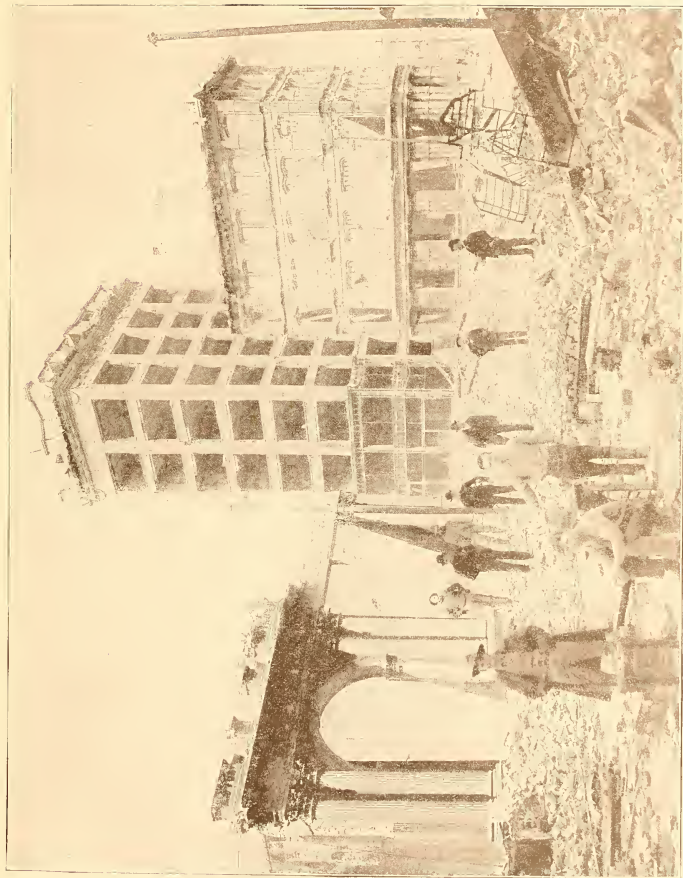
Central Theatre, Eighth and Market.



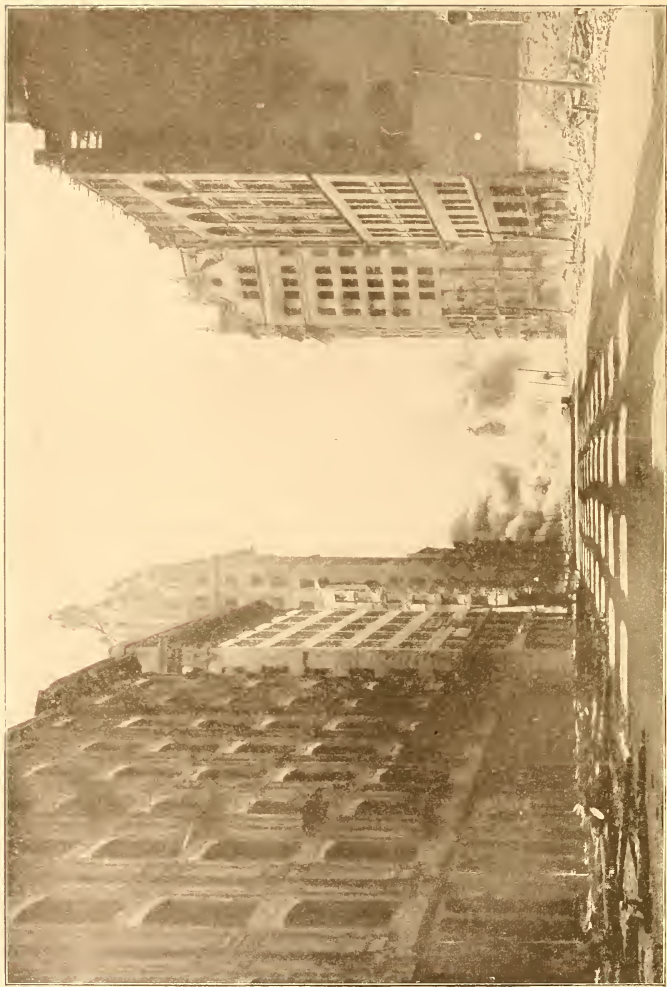
Looking West on California Street. Palace Hotel on Left, Call Building in Center, Mutual Savings Building on Right,
Chronical Building Extreme Right.



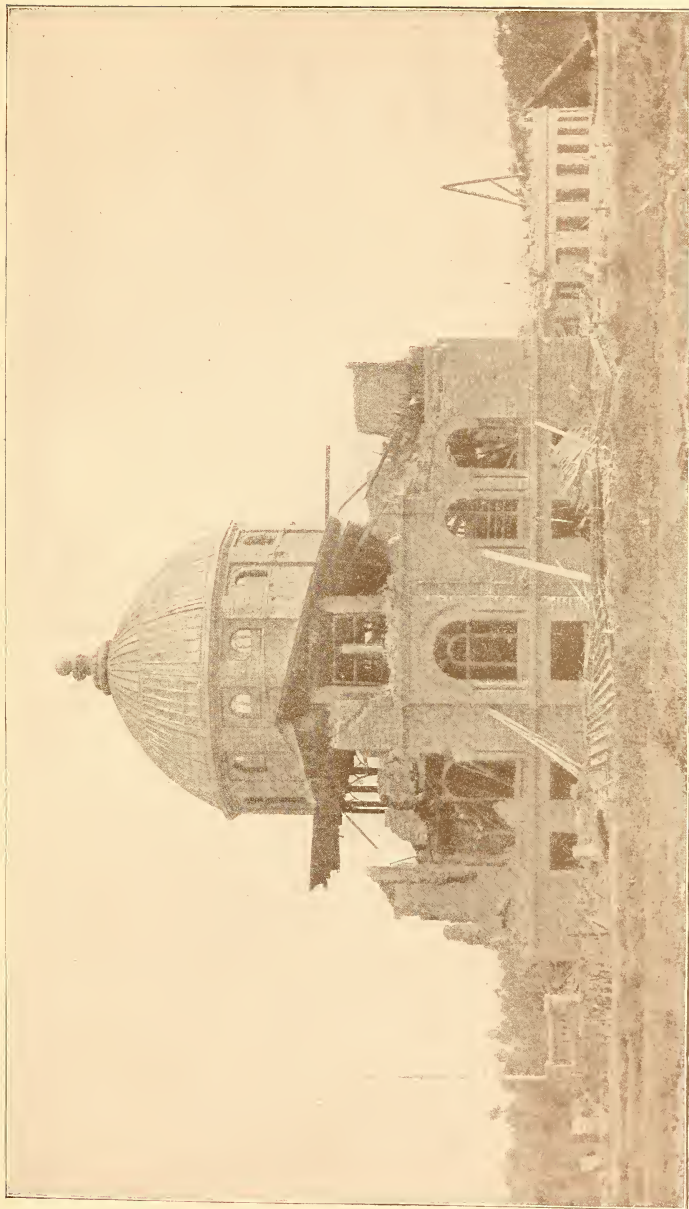
Memorial Arch, Leland Stanford University.



View on Montgomery Street Looking N. W. Showing Entrance to Lick House and San Francisco Saving Bank.



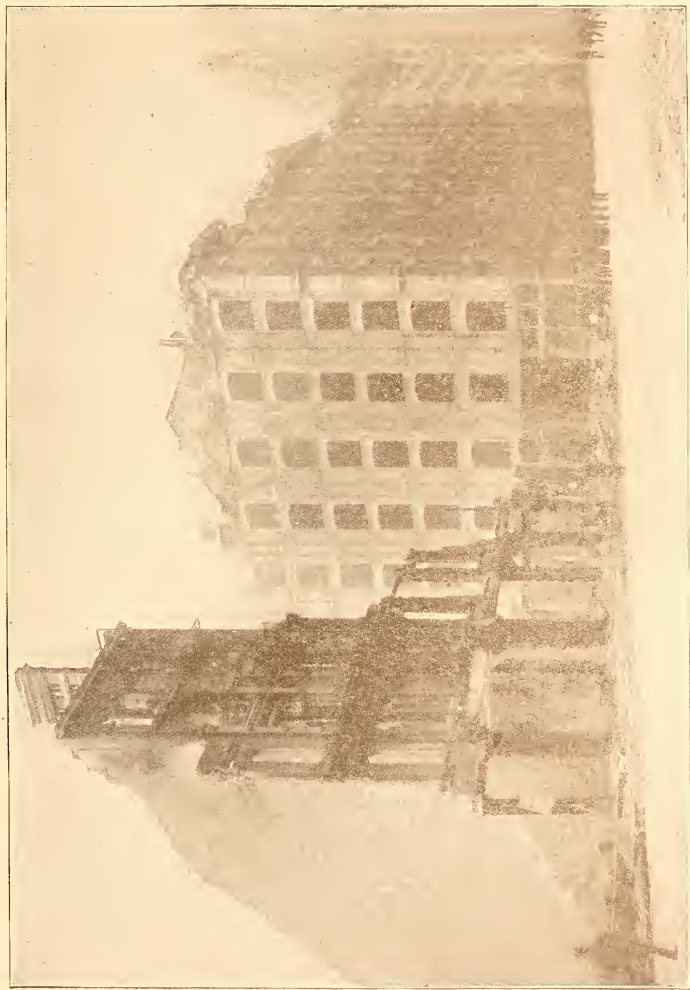
Blazing Ruins on Market Street. Palace Hotel on Left, Call Building in Center, Mutual Savings Building on Right,
Chronicle Building on Extreme Right.



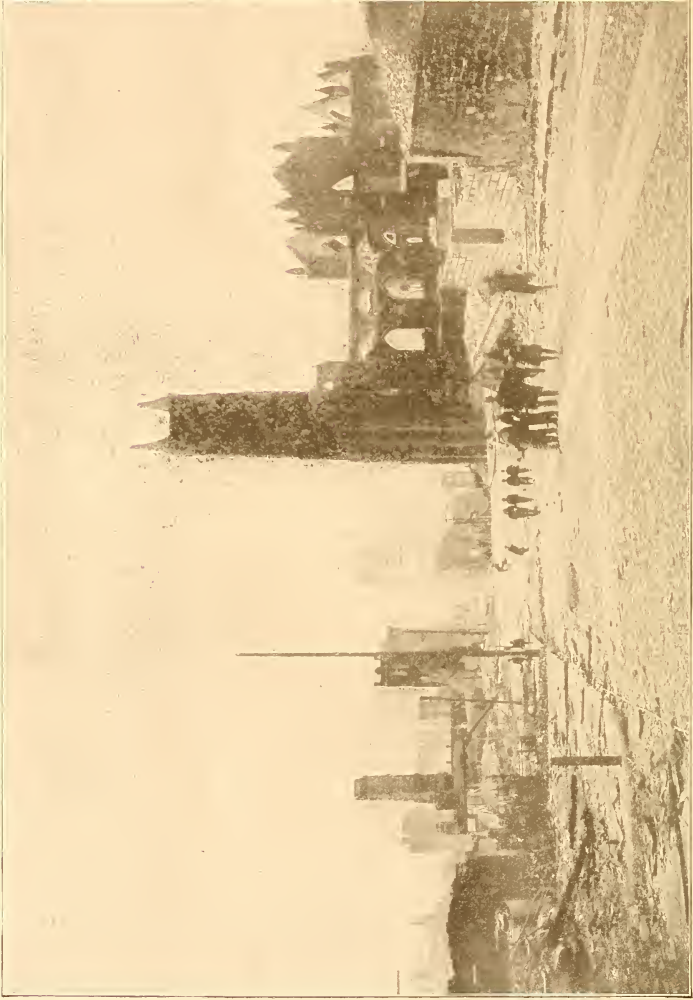
Ruins of New Chapel Caused By Earthquake, Leland Stanford University.



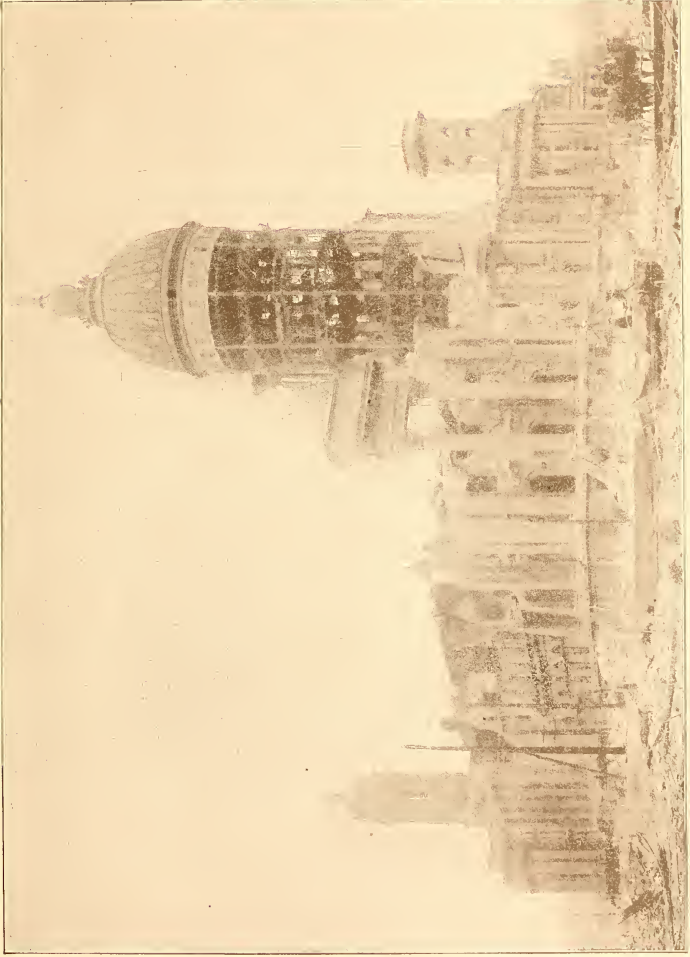
California Theatre. Bush Street Near Kearney. Chief Sullivan, of the Fire Department and His Wife Were Injured in the Fall of
the Hotel Surrounding Theatre. Sullivan Died, Wife Not Expected to Live.



Looking West on Market Street. Grand Hotel Ruins on Extreme Left. Palace Hotel. Call Building.



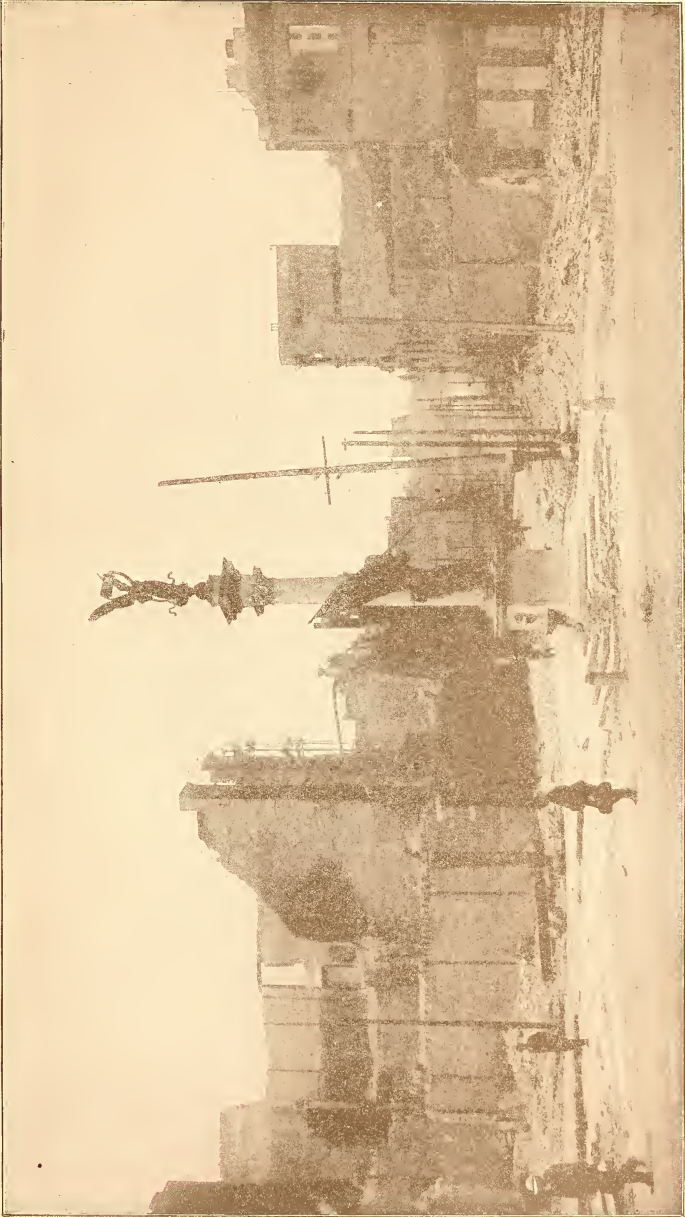
California Street Looking East From Powell. Grace Church on Right. Merchant's Exchange Building in Distance.



City Hall, San Francisco.



Looking S. W From Fairmont Hotel.



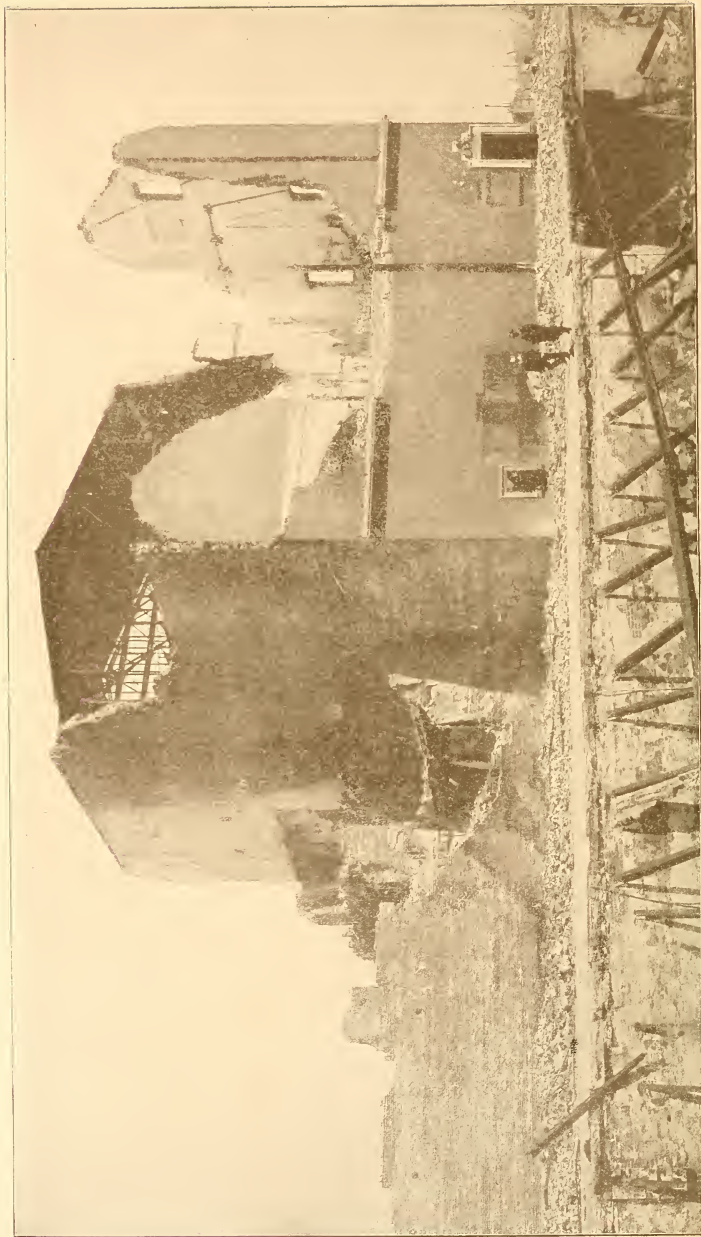
Looking North on Mason Street From Market.



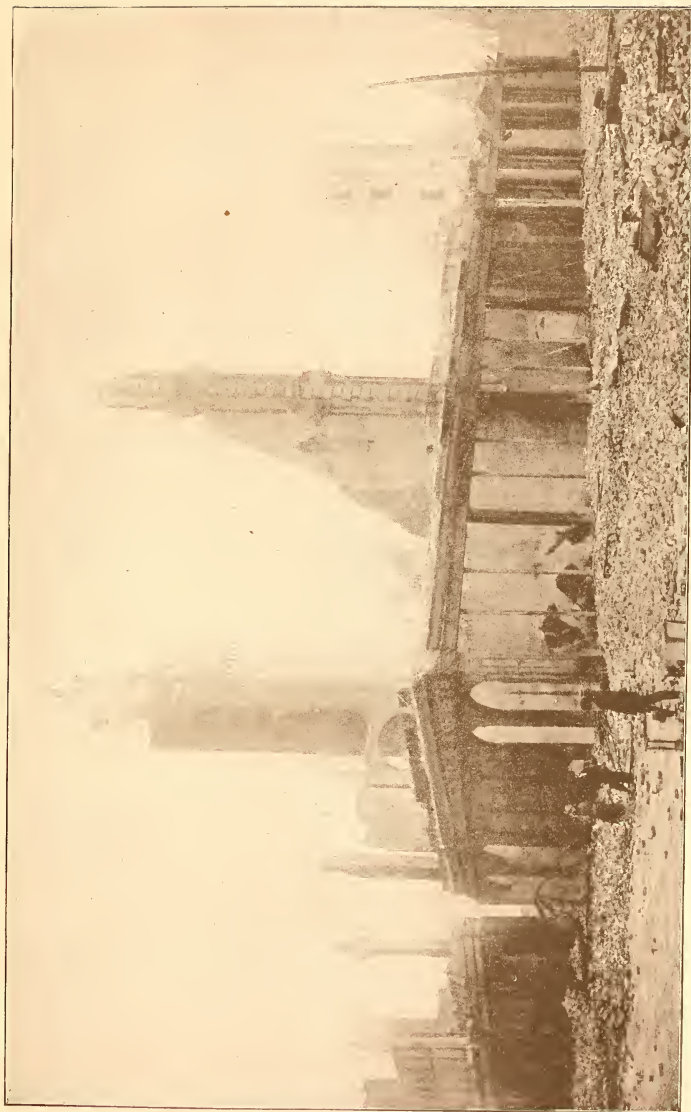
Looking North From Post Office. Market Street in Foreground. Hibernian Bank on Left. Fairmont Hotel in Right, Distance.



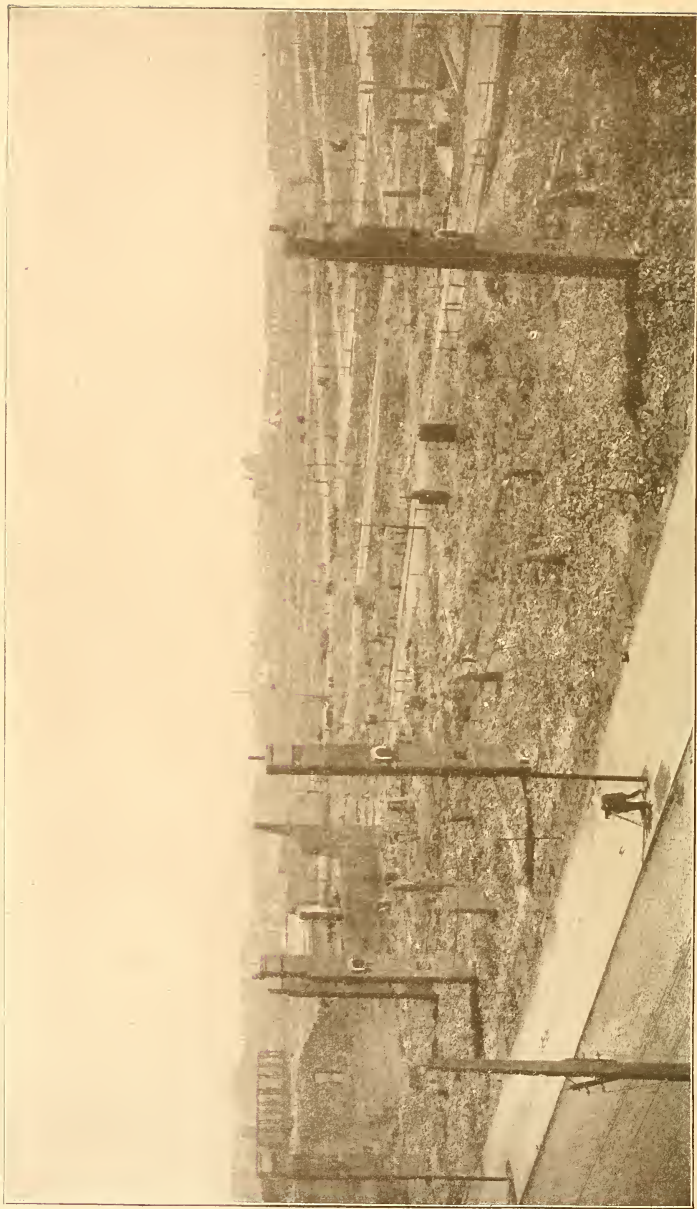
Stewart Street Looking North to Market. Cracked Pavement.



Majestic Theatre, Ninth and Market. "Handsome Theatre West of New York."



Occidental Hotel, S. E. Bush and Montgomery.



Looking S. E. From Post Office.

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