

appeared On the 26th of December the sounding-line showed twenty-four fathoms as the ship's first outlying colony was a failure

The United States can claim but two active volcanoes—St. Helen's, a fellow-pilot, far removed from the volcanic belt of the Cordillera and its fire-crozier of Orizaba. The eastern and northern coasts of the Pacific are formed by a volcanic range, as every school-boy knows.

Uphavals and depressions on a great scale, and operating slowly over vast areas, have made broad gaps in these lands and obliterated others formerly of doubtful quite as clearly marked. In none of these rows of chimneys is at any time continuous and synchronous in activity, but the effects supposed to underlie and are tapped by them prevent their continuity frequently by sympathetic movements involving points separated by thousands of miles. Paroxysms in Iceland, Vesuvius, and Actua have more than been synchronous coincident. In 1855, Cosaguina in Nicaragua and Aconcagua burst into eruption on one and the same day. They are separated by an interval of thirty-two hundred miles. Why this sympathetic communication is at these intervals with such velocity? Sound would traverse that distance named in about five hours. It is on record that Vesuvius was heard at Bogota, eleven hundred miles from the crater. The atmosphere could not have accomplished this. The reverberation must have been conveyed along the crust of the earth through the secret breaking-tubes of the fraternity. The mere concussion may have caused the explosions, by unsettling the equilibrium of the summing forces, much as the Stock is affected by the news of a battle.

When the gases rising from the molten interior lake seek egress, they force their way in a broad sheet through the space between its surface and the underside of the overlying crust. The enormous tension cannot fail to tell upon the plastic crust. As a rule, the volume of these fluids seems insufficient to produce a serious tremor unless steam is added to the pressure. The steam, even then, the vibration they cause before reaching the escape-valve is, even in extreme cases, relatively very slight. The most terrible earthquake does not seem when measured by the force upon the surface of which it acts, with the twitch of a horse's skin in shaking off a fly. It is imperceptible to the eyes of those who experience it in an open plain ten and the lower animals are seldom overturned by the movement of the soil. Their injuries are due to falling of walls, and less frequently to the sudden opening of crevices in the soil. These are attributed to the air and steam swirling down to an infinitely small discoloration as they sink toward the centre of disturbance. Usually, the shock lasts but a few moments, room for expansion being supplied by the air and steam of the imprisoned vapour. Sometimes they are repeated during days, and even months.

LIBSON EARTHQUAKES.

Of numerous and equally disastrous earthquakes in modern years, that of Lisbon, November 1, 1755. The attack and instantaneous reduction of a European capital by a new and terrible invader made an impression on the human mind long in dying out. The accounts of eye-witnesses are abundant and full. Even in our day, a hundred and twenty years later, new ones are discovered in private letters written to a friend and buried in desks and chests. Many English were in the city, or on vessels in the Tagus, who could describe the event in its two aspects, on land and water.

In this case there was no warning. At half-past nine in the morning a tremendous noise was followed by a shock which prostrated the most solid structures of Lisbon to a movement. Some minutes after the movement was renewed in a klan, likened to that of a chariot rolling with extreme violence over a rugged surface. First and last, the terrible blow occupied five minutes. The base of the river rose in several places to the level of its waters, and the great quay of the Prada was swallowed up with a crowd who had sought safety upon it. For brief space of time the harbour was left almost dry, but the water returned in a billow fifty feet high, which swept many walls left standing. Toward noon another shock more feeble than the previous one, and the tragedy was not confined to Lisbon. Oporto, Cadix, and Madrid felt the shock at the same time, almost to a minute. Other towns and some of the loftiest mountains of the Peninsula ex-

perienced it with more or less marked results, but it did not extend itself to the bounds of Spain and Portugal, nor was its severity by any means measured solely by distance from any supposed focus. The convulsion extended to the twelfth part of the surface of the globe, not only was all Europe shaken, but a part of America and North Africa. Vesuvius in eruption at the time, was suddenly silenced, and its column of smoke no longer absorbed into the crater. Churches in Rotterdam were shaken ten hours after the Lisbon shock. Lakes and springs in many parts of Germany, Norway, and Sweden were affected. Westward across the Atlantic the vast oscillation took its way. At Madeira the sea rose fifty feet. A billow, twenty feet high, is said to have entered the harbour of St. Martin in the West Indies. On the 13th November the impulse reached New England. In Boston, chimneys were blown down or cracked, and among the farms stone fences had the like mishaps. The effects were felt on Lake Ontario.

Are the forces, various in their manifestations, complex and distinct in their character? Are they all to be summarily ascribed to the molten interior? If so, does liquefaction by heat extend to the centre of the sphere? Has the contact with the earth from either pole and expansion at the equator, productive of a present difference in diameter five times greater than the height of the loftiest mountains, notwithstanding the great weight of the mountains, not to do with the long ridges they stud, and of the broader and more gentle plateaus upon which they stand? May not the assigned fluctuation of latitude have its extreme amount—in the inclination of the equator to the ecliptic, perpetually changing, as it does, the distance of each point on the earth's surface from the sun? Has the combustion with the former influence in affecting gradually or suddenly the distribution of land and water? In September, 1891, in San Salvador, millions of acres of property and human lives were destroyed by earthquake. Whole towns were wiped out and hardly a city in the country except those along the coast escaped the awful effects of what is called the "big one." It shook the earth ross and fell in long waves, and strong men were unable to keep their feet. The panic-stricken people flocked to the open ground outside of the city.

A LOOK AT BOTH SIDES.

There are two sides to almost every question; sometimes there are three or four. The Rev Mr. Pugh tells the following story of a man who one day got a clear view of both sides of the drink question.

There was a man who was much given to strong drink, he was an excellent waiter at a certain house, but none of it went home; it was all spent in the public-house, where he also spent most of his time. One morning he stayed longer than usual there, and while he was sitting on a bench as he was called, Mrs Jones, the landlady, entered the room, and looking out of the window, she called his attention to a poor wretched woman who was picking up cinders at the windy got. "No, do not go in there," pleaded his wife. "Oh, we will just go in for a minute. I will take care we get no harm," he replied.

"Unwillingly Mrs Jones followed him in, and he called "Mrs Jones." She remembered the voice and was with them in a minute. "Mrs Jones, what do you think of Mary?" "Isn't that a fine girl?" "Yes," answered she, "she is very neat." "Isn't there a difference between when you saw her picking up cinders and now?" "Mrs Jones admitted there was a difference. "Well," said the happy husband, "it is because I give Mary the money I earn now instead of giving it to you. Thousands of reckless husbands might

profit by taking a similar view of the condition of their wretched wives, whose rights are taken from them to fatten the greedy grog-sellers.

OUR PERIODICALS:

Table listing various periodicals and their prices, including Christian Guardian, Yearly Missionary and Review, Illustrated, Christian Review and Methodist Magazine, and others.

THE ABOVE PAPERS ARE SENT POSTAGE FREE. WILLIAM DIXON, Methodist Book and Publishing House, Toronto. U. S. COASTS, 216 St. Catherine St., Montreal. S. F. HICKEY, Western Book B., Halifax, N.S.

Pleasant Hours:

A PAPER FOR OUR YOUNG FOLK. Rev. W. H. Withrow, D.D., Editor.

TORONTO, SECOND QUARTER, 2, 1899.

A GIRL'S WORK.

Several years ago a young girl took a class of boys in a certain Sunday-school. She was very young, had never taught, and therefore shrank from the work, but with that instinctive sagacity which boys often show, they chose her, and she was not far from being so, very doubtfully, she began her work. There were ten boys in the class, and they lived in a village of four or five thousand inhabitants—a village that boasts of forty drinking saloons! They were not the good sort of boys—not at all!—teacher, and a strong class-spirit was soon developed, of which our slender girl did not fail to take advantage. She encouraged them to stand together, and she stood among them. They learned to tell her everything, and she was the hearty, sympathetic adviser and personal friend of each.

"Wise little woman!" She was laying the foundation deep and strong. For well she knew that by-and-by the floods would rise, and the winds would blow, and that they were formed of boys whose interests to her care! And so she dug deep into the solid confidence and affection of her boys. The trial days did not delay to come. The boys began to bring tall and costly. They were learning to smoke and to taste beer, and what more natural than that they should find themselves too large to go to Sunday-school?

She had a dreadful time with these boys for four years," said the teacher. "But I could not and would not let them go!" But how did you retain them? Boys at that age are pretty strong. "They followed them. As soon as a boy absented himself from Sunday-school I went after him. I had their confidence, and they would tell me even when they did pretty bad things. They were wide-awake, active boys, and wanted to try about every new thing, and they did; but I tried to keep along with them all one time they formed themselves into a first-rate room, and grew old very fast. I used to tremble in those days, and I had reason to! But I did not give up."

"It would have taken a great deal of time to follow them up." "Well, yes, it did. There have been weeks in succession when I was out every evening looking for my boys. But I thought it would pay."

"And has it?" asked the curious listener. "I think so. Six of the ten remain, and I have no more difficulty in keeping them in Sunday-school. They have made away with all but two of them. All but two are Christians, and those two are steady, and seem to be well satisfied in principle." "Yes, I can see that. Do you still teach them?" "But I cannot induce them to go into

a Bible-class, though I have often tried to do so. They seem to dislike that thought of a change."

And she had time to give to her class, some one says. Listen: During all those years she was a hard-working school-teacher, with but a slender stock of health and strength to draw upon! Yes, she had time to give to her boys, but where do you think she found it? Possibly some of the adornments and enjoyments of girlhood had to be given up. Did it pay?

Mysterious Guests.

I had three friends. I asked one day "What they would dine with me; But when they had time to give to her class, some one says. Listen: During all those years she was a hard-working school-teacher, with but a slender stock of health and strength to draw upon! Yes, she had time to give to her boys, but where do you think she found it? Possibly some of the adornments and enjoyments of girlhood had to be given up. Did it pay?"

That were six instead of three.

My good wife whispered, "Wo, at best, But five can hope to dine, Send one away." "I did. The rest Remaining numbered nine.

"I too will go," the second cried, He left at once, and then, Although to count but eight I tried, There were remaining ten.

"Go call them back!" my wife implored: "I fear the third may go, And leave behind, to share our board, Perhaps a score or so."

The second one then straight returned. As might have been expected: He, with the ten, we quickly learned, Eleven made Dejected,

What was the first returning; he, We saw all the rest, turned round! And there, behold! were my friends Three, Though six they still were found

For those of you who yet may find My riddle too complex, I'll say the friends I had in mind Were "S" and "I" and "X."

TEMPERANCE BOYS AND GIRLS.

BY W. F. CRAFTS.

I wish to give three reasons why all these boys and girls ought to be on the temperance pledge. First, because you know enough about the evils of rum and the meaning of the pledge. Some one who thought boys and girls ought not to sign the pledge asked a little boy, "What was the rum drink?" "Mean?" He answered, "Getting crazy on purpose." Then he was asked, "What does 'pledge' mean?" He answered, "'To promise something, and then stick to it, and when they marched they had on their flags the words, 'Tremble tyrants, we shall grow up.' They intended to drive the wicked rulers out of the country then." "But the boy under good it, and so he let him sign the pledge and work for temperance. The second reason that I want the boys and girls on the side-of temperance is because temperance people are more in character when we get the boys to be now. Bad boys will most likely be bad men, and good boys good men. In France, when wicked tyrants were kings, some of the boys had a hand of them, and when they marched they had on their flags the words, 'Tremble tyrants, we shall grow up.' They intended to drive the wicked rulers out of the country then." "But the boy under good it, and so he let him sign the pledge and work for temperance. The third reason is because everybody can do something to help the cause of temperance, even the boys and girls. If there were only two temperance people in the world to-day, and each of them should get one more every year to be temperance, and each of these new boys and girls were to drive every year, it would be but thirty years before all the people in the world could be on the side of temperance. Let us all sign the pledge and keep it, and get everybody else we can to let rum entirely alone.

"I prepared that sermon," said a young sprig of divinity, "in half an hour, and preached it in an, and thought nothing of it." "At that," said an elder and wise clergyman, "you have never done one with you for it. He also thought nothing of it."—C. H. Spurgeon.