

quarter of an hour. It is interesting to follow one of these balls through the course of its multifarious duties. It first enters a sling in a tape wound over the escape-wheel axle, and it is the weight of this and three other balls (which have been previously deposited in preceding slings) which keeps the escape wheel going. As the wheel turns round, the balls descend, and after a quarter of an hour the lowest will have arrived at a funnel-shaped opening, where it will get liberated from its sling, and fall. It first strikes a lever which enables the drum to move on and discharge another ball into a sling upon the escape-wheel tape. Then, rushing down a tube, it enters a zigzag. It is within this zigzag that the striking of the quarters is performed; for at each of its angles a bell is placed, against which the ball strikes sharply as it passes them. After leaving this zigzag, the ball is projected down another, where it strikes the hours.

As the number of blows to be struck is regulated by a similar contrivance at each zigzag, we will confine our attention to that for the hours. The channel down which the ball passes is vertical to the face of the zigzag. Now, the front or zigzag side of this channel is a moving tape, which carries a little trap. As the tape is always moving, the position of the trap depends upon the time, and the position of the trap also determines the stage of the zigzag upon which the ball will be projected. Thus, when the trap is opposite the sixth stage of the zigzag, the ball will encounter six corners upon its way down, and consequently six blows will be sounded; when the trap is at the top, twelve blows are sounded; and when the trap is at the bottom, no blows are sounded. When the ball leaves the zigzag, it enters a sling at the lowest part of the chain first spoken of, and is intermittingly carried up again to begin its work over again. For repeating the hours and quarters at will, there is a separate reservoir of smaller balls; and, by pulling a handle, one of these can be discharged above the first zigzag; and when it has done its work, it disappears through a hole, which the regular balls cannot penetrate, back to its own reservoir. It may be mentioned, that, in lieu of bells, the hour zigzag has a single vertical sonorous tube for each set of corners. The time, days of the week, etc., are shown by means of tapes carrying pointers suspended over the escape-wheel and another axle.

The inventor, the Rev. Canon Cinquemani, maintains that the simplicity and precision, by reason of the constant force on the escapement of his "chronologe" (which he has patented), render it peculiarly advantageous for missionary and other distant stations, where the assistance of professional clock-makers is not readily procurable.

LETTERS TO THE EDITOR.

. Correspondents are requested to be as brief as possible. The writer's name is in all cases required as proof of good faith.

The editor will be glad to publish any queries consonant with the character of the journal.

On request, twenty copies of the number containing his communication will be furnished free to any correspondent.

Mohawk Folk-Lore.

At various times during the past two years the writer has had opportunity to converse at length with Odjĭdjätėkhă, an intelligent young Indian of the Mohawk tribe residing near Brantford. From him the material given here has been obtained.

The Child and the Bear.—Once upon a time a child was left an orphan. A council of his clan was held to consider what should be done with him, and to decide as to whose care he should be given over. Some one (a woman) asked permission to keep him, but soon after allowed him to get astray in the woods, where he was taken up by a bear (the Indians believe that bears are more loving to their offspring than men). The old she-bear had six cubs, and she made the child the seventh. She lived in a hollow log. One day she was out, and the hunters spied her, and, with four dogs with four eyes apiece, they pursued her, and she was just able to reach her hollow log and crawl into it. The hunters shot her and split the log open, and discovered the six cubs, but where was the seventh? After searching for a while, they found it in the end of the log, all safe and sound, and they were sorry for having killed the bear.

The above story is represented as being told by an old man to children. At the conclusion of it, the child asked, "Why are you so afraid now to let us go into the woods where there are bears, if the bears are so kind?"—"Because our love for you is great, and because of the way in which the child came into the bear's possession."

A Ghost Story.—Dogs are regarded as giving warning of the approach of ghosts, spirits, etc. One day a dog said to a man that at a certain time the ghosts would come for him, and that he must pack up and be off if he did not want them to get him. If he disregarded the dog's warning, he would be lost. He started, and the dogs, one on each side of him, trotted along, and when he was tired carried him on [how they did this the narrator could not say: the Mohawk word used meant simply "carried"]. Behind them they could hear something flying along, and making a great noise like thunder as it came nearer and nearer. It was the spirit; and when it got too near, one of the dogs would go back and fight it, while the other would go along for a while, and then take his turn at fighting back the ghost. By and by one of the dogs got tired, and said to his master that he could not hold out any longer; and he went back, and the master saw him no more. The other dog, however, kept on, and the man reached home, and on arriving fell down on the threshold. A light was seen, and when the crowd gathered round and questioned him, he said, "I've seen a ghost." The Indians are very much afraid of strange lights, believing them to be ghosts.

A Dog Story.—When asked if the Indians ever believed that dogs spoke, Odjĭdjätėkhă said that at Caughnawaga (an Indian settlement in the Province of Quebec), some time ago, a man put his dog out of doors in cold weather. After a while he heard somebody outside saying how cruel and bad it was to keep him out in such very cold weather. He thought it was a man, and opened the door, and saw his dog wagging his tail.

Thunder and Lightning.—The Mohawks believe that thunder is caused by seven men, who are up in the sky. Formerly there were only six of them; but once upon a time an Indian got up there, and since then has prevented them from harming Indians. Thus it is that no Indian is ever struck by lightning. When it thunders and lightens very much, the Indians exclaim, "Say, old man, enough of that!"

Weather-Lore.—Among the Mohawks the hog is regarded as a sort of weather-prophet. When cold is about to come on, he carries straw in his mouth to make a nest. When a hog is killed, the people examine something in the inside to see what the weather will be. Every year at the Reservation prophecies are made regarding the weather for the following year, and Odjĭdjätėkhă claims that these are often quite successful. The Indians note a good deal about the weather from trees, and from the actions of various animals and birds, such as the muskrat, the woodpecker, etc.

Feasts, Games, etc.—The Pagan Cayugas and Onondagas still practice their old dances and other rites. The Onondagas have their white dog feast in the spring. There are also the green-corn dance and the fall dance. The dances of the Pagan Indians are celebrated near Brantford towards the end of January.

The chief games of the Indians are, in summer, lacrosse, and in winter the snow-snake. At a sort of religious festival in the "long house," a game of lacrosse is played by women.

The snow-snake is the chief amusement of the Pagan Indians on Sundays in winter. Odjĭdjätėkhă stated that the snake has been thrown by a skilful player to the distance of from 275 to 375 yards. The Mohawk name for the "snow-snake" is *ăgwădrăhontă*; in Tuscarora, *ătră hontă*; in Onondaga, *hăwhontă*.

A. F. CHAMBERLAIN.

Clark University, Worcester, Mass., Nov. 15.

Mount St. Elias and the Culminating Point of the North American Continent.

THE article on Mount St. Elias which Dr. Dall has communicated to your issue of Nov. 14 calls for a reply. In my paper, "Barometric Observations among the High Volcanoes of Mexico, with a Consideration of the Culminating Point of the North