

## SCIENCE:

A WEEKLY NEWSPAPER OF ALL THE ARTS AND SCIENCES.

PUBLISHED BY

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Communications will be welcomed from any quarter. Abstracts of scientific papers are solicited, and twenty copies of the issue containing such will be mailed the author on request in advance. Rejected manuscripts will be returned to the authors only when the requisite amount of postage accompanies the manuscript. Whatever is intended for insertion must be authenticated by the name and address of the writer; not necessarily for publication, but as a guaranty of good faith. We do not hold ourselves responsible for any view or opinion expressed in the communications of our correspondents. Attention is called to the "Wants" column. All are invited to use it in soliciting information or seeking new positions. The name and address of applicants should be given in full, so that answers will go direct to them. The "Exchange" column is likewise open.

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SO FAR AS any definite information has reached this country in regard to the discovery by Koch of a cure for consumption, it appears that the announcement of Koch's discovery was somewhat premature, and that his experiments have not advanced so far as he wished before he would, from preference, have published them. But the interest excited has induced him to make a preliminary statement of results in the *Deutsche medicinische Wochenschrift* for Nov. 14. Even now he simply states that the remedy is a brownish, transparent liquid, which must be injected subcutaneously, preferably on the back between the shoulder-blades and the lumbar region. Small doses do not affect the healthy human being; while with tuberculous patients the re-action consists in an attack of fever, which usually begins with rigors. This is accompanied by pain in the limbs, coughing, great fatigue, and often nausea, the whole beginning four or five hours after the injection, and lasting about twelve. In case of any tuberculous affection on the surface, local re-actions take place, which in the case of lupus result, after one or more injections, in the falling-off of the lupus-tissue, leaving a clean, red cicatrix behind. The symptoms above described occurred in all cases in which a tuberculous process was present, showing the remedy to be at least an aid to diagnosis. In what way the cure takes place cannot as yet be stated with certainty; but Koch believes that the remedy does not kill the bacilli, but the tuberculous tissue, and that it may be necessary to even resort to surgical aid to remove the dead tissue if the organism affected cannot throw it off. Glandular, bone, and joint tuberculosis were similarly treated, with the same result as in lupus, of a speedy cure in recent and light cases, and slow improvement in others. With consumptive patients the dose had to be still further reduced. The results were, that those in the first stage of phthisis were freed from all symptoms of the disease, and might be pronounced cured, patients with cavities not much developed were improved, and only those with large cavities in their lungs showed no improvement in condition. Relapses may occur, of course. A most important point is the need of early application of the method.

## THE AMERICAN FOLK-LORE SOCIETY.

THE second annual meeting of this society will be held in New York City on Nov. 28 and 29, being the Friday and Saturday following Thanksgiving Day. By the courtesy of President Seth Low, LL.D., the sessions will be held in Room 15, Hamilton Hall, Columbia College, Madison Avenue and Forty-ninth Street.

On Friday there will be three sessions for business and reading of papers. At 10 A.M. the council will meet. At eleven o'clock the president, Dr. Daniel G. Brinton, will take the chair, and an address of welcome will be delivered by Professor John S. Newberry, president of the New York Academy of Sciences. The council will then present its report to the society. Reports of officers and committees will be received, and general business will be transacted. At one o'clock the session will adjourn, and the members are invited to a lunch provided by the local committee. At 2.30 P.M. the society will re-assemble for the reading of papers. At 8 P.M., by invitation of the New York Academy of Sciences, a joint meeting of the Folk-Lore Society and the academy will be held in the same hall, at which papers will be read.

On Saturday there will be a single session beginning at 10 A.M. The meetings of the society will be open to the public, but only members will take part in the business and discussions.

The following papers are announced to Nov. 17: Rev. W. M. Beauchamp, D.D., "Hiawatha;" Dr. Franz Boas, "Dissemination of Tales among the Natives of North America;" Dr. H. Carrington Bolton, "Some Hawaiian Pastimes;" Dr. Daniel G. Brinton, "The Worship of Astarte in America," and "The Ethnic Side of Folk-Lore;" Mr. A. F. Chamberlain, "Naniboju among the Ojebways and Mississagas;" Rev. Heli Chatelain, "West African Folk-Lore;" Mr. L. E. Chittenden, "Note on an Early Superstition of the Champlain Valley,—the Whip-poor-will;" Mr. Charles F. Cox, "Faith-Healing in the Sixteenth and Seventeenth Centuries;" Mr. Stewart Culin, "Children's Street Games, Brooklyn, N.Y.;" Rev. J. Owen Dorsey, "Siouan Cults;" Mr. George F. Kunz will make an exhibition of rare objects of folk-lore interest; Professor Daniel S. Martin, "Survival of Superstitions among the Enlightened;" Professor Otis T. Mason, "The Natural History of Folk-Lore;" Dr. John S. Newberry, "The Ancient Civilizations of America, Date and Derivation;" Mr. William Wells Newell, "The Practice of Conjuring Noxious Animals as Surviving in the Folk-Lore of New England;" Dr. Frederick Starr, "The Folk Lore of Stone Implements;" Mr. Louis Vossion, "The Nat-Worship among the Burmese;" Mr. Thomas Wilson, "The Amulet Collection of Professor Belucci, Perugia, Italy, and how it came to be made."

The Wellington Hotel, corner of Forty-second Street and Madison Avenue, will take a limited number of members at favorable rates.—rooms from \$1 to \$2 per day, and meals from \$1.50 to \$2 per day, the hotel being on the restaurant plan. The Wellington is very conveniently situated, being only one block from the Grand Central Depot, and seven short blocks from Columbia College, while three lines of horse-cars pass its doors. Persons desiring less expensive accommodation will find the Kingsborough, 58 West Thirty-third Street, near Broadway, comfortable at \$2 per day (on the American plan).

The committee has made efforts to obtain reduced rates on the railroads centring at New York, but without success, owing to the restrictive regulations of the companies. For further information, address the chairman of the local committee, H. Carrington Bolton, at the University Club, New York City.

## THE CINQUEMANI "CHRONOLOGE."

THIS is a very singular and interesting contrivance. As described by a correspondent of *Nature*, it is a clock with only one toothed wheel, yet it shows the hours, minutes, days of the week, etc., and strikes the hours and quarters at each quarter of an hour. Moreover, there is an arrangement for repeating the hours and quarters at will. The single toothed wheel spoken of is the escape-wheel, and this propels a pair of pallets and pendulum in the ordinary way. The rest of the work is done in the fall of a small leaden ball, a long chain of these balls being intermittently elevated, and one of them discharged over a revolving drum each

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 Odjĭdjätĕkhă, 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, Odjĭdjätĕkhă 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 Odjĭdjätĕkhă 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. Odjĭdjätĕkhă 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 *ăgwădrăhōntă*; in Tuscarora, *ătră hōntă*; in Onondaga, *hăwhōntă*.

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