

sooner ashore than Mishosha pushed his canoe a little from land, and exclaimed, "Listen ye gulls! you have long expected something from me—I now give you an offering. Fly down and devour him!" Then striking his canoe, he darted off, and left the young man to his fate.

The birds immediately came in clouds around their victim, darkening the air with their numbers. But the youth, seizing the first gull that came near him, and drawing his knife, cut off its head. In another moment he had flayed the bird, and hung the skin and feathers as a trophy on his breast. "Thus," he exclaimed, "will I treat every one of you that approaches me! Forbear, therefore, and listen to my word. It is not for you to eat human flesh; you have been given by the Great Spirit as food for men. Neither is it in the power of that old magician to do you any good. Take me on your back and carry me to the lodge, and you shall see that I am not ungrateful."

The gulls obeyed: collecting in a cloud for him to rest upon, they quickly bore him to the lodge, where they arrived even before the magician. The daughters were surprised at his return, but Mishosha behaved as though nothing extraordinary had happened.

On the following day he again addressed the youth: "Come, my son," said he, "I will take you to an island covered with the most beautiful pebbles, looking like silver. I wish you to assist me in gathering some of them; they will make handsome ornaments, and are possessed of great virtues." Entering the canoe, the magician made use of his charm, and they were carried in a few moments to a solitary bay in an island where there was a smooth sandy beach. The young man went ashore as usual. "A little farther, a little farther," cried the old man; upon that rock you will get some fine ones." Then pushing his canoe from land, he exclaimed, "Come, thou great king of fishes, thou hast long expected an offering from me! come and eat up the stranger I have put ashore on your island." So saying, he commanded his canoe to return, and was soon out of sight. Immediately a monstrous fish poked his long snout from the lake, and moving towards the beach, he opened wide his jaws to receive his victim.

"When," exclaimed the young man, drawing his knife and placing himself in a threatening attitude, "when did you ever taste human flesh? have a care of yourself! you fishes were given by the Great Spirit for food to man, and if you or any of your tribes, taste man's flesh, you will surely fall sick and die. Listen not to the words of that wicked old magician, but carry me back to his island; in return for which I will give you a piece of red cloth."

The fish complied; raising his back out of the water for the youth to get on it; then taking his way through the lake, he landed his burthen safely at the island before the return of the magician.

The daughters were still more surprised to see him thus escaped a second time from the snares of their father, but the old man maintained his usual silence; he could not, however, help saying to himself, "What manner of boy is this, who thus ever baffles my power? his Good Spirit shall not however, always save him; I will outtrap him to-morrow." And then he laughed aloud, ha! ha! ha!

The next day the magician addressed the young man thus: "Come, my son, you must go with me to procure some young eagles, I wish to tame them; I have discovered an island on which they dwell in great numbers."

When they had reached the island, Mishosha led the youth inland, till they came to the foot of a tall pine upon which the nests were.

"Now, my son," said he, "climb up this tree and bring down the birds." The young man obeyed, and when he had with great effort got up near the nests, "Now," exclaimed the magician, addressing the tree, "stretch forth yourself to heaven, and become very tall!" and the tree rose up at his command. Then the old man continued, "Listen, ye eagles! you have long expected a gift from me; I present you this boy, who has the presumption to molest your young; stretch forth your claws and seize him!" So saying, he left the young man to his fate, and returned home. But the intrepid youth, drawing his knife, instantly cut off the head of the first eagle who menaced him, and raising his voice, he cried, "Thus will I deal with all who come near me! What right have ye, ye ravenous birds, to eat human flesh? Is it because that old cowardly magician has bid you do so? He is an old woman! See! I have already slain one of your number; respect my bravery, and carry me back to the lodge of the old man, that I may show you how I shall treat him!"

The eagles, pleased with the spirit of the young man, assented; and clustering round him, formed a seat with their backs, and flew towards the enchanted island. As they crossed the lake, they passed over the old magician lying half asleep in the bottom of his canoe, and treated him with peculiar indignity.

The return of the young man was hailed with joy by the daughters, but excited the anger of the magician, who taxed his wit for some new mode of ridding himself of a youth so powerfully aided by his Good Spirit. He therefore invited him to go hunting. Taking his canoe, they proceeded to an island, and built a

lodge to shelter themselves during the night. In the mean time the magician caused a deep fall of snow, and a storm of wind with severe cold. According to custom, the young man pulled off his moccasins and his metasses (leggings,) and hung them before the fire. After he had gone to sleep, the magician, watching his opportunity, got up, and taking one moccasin and one legging, threw them into the fire. He then went to sleep. In the morning, stretching himself out, he arose, and uttering an exclamation of surprise, he exclaimed, "My son, what has become of your moccasin and legging? I believe this is the moon in which fire attracts, and I fear they have been drawn in and consumed!"

The young man suspected the true cause of his loss, and attributed it rightly to a design of the old magician to freeze him to death during their hunt, but he maintained the strictest silence; and drawing the blanket over his head, he said within himself, "I have full faith in my Good Spirit who has protected me thus far, and I do not fear that he will now forsake me. Great is the power of my Manito! and he shall prevail against this wicked old enemy of mankind." Then he uncovered his head, and drawing on the remaining moccasin and legging, he took a coal from the fire, and invoking his Spirit to give it efficacy, blackened the foot and leg as far as the last legging usually reached; then rising, said he was ready for the morning hunt. In vain the magician led the youth through deep snow and frozen morasses, hoping to see him sink at every step; in this he was doomed to feel a sore disappointment, and they for the first time returned home together.

Taking courage from this success, the young man now determined to try his own power. Having previously consulted with the daughters, they all agreed that the life of the old man was detestable, and that whoever would rid the world of him would be entitled to the thanks of the human race.

On the following day the young man thus addressed the magician: "My grandfather, I have often gone with you on perilous expeditions, and never murmured; I must now request that you accompany me; I wish to visit my little brother, and bring him home with me." They accordingly went on shore on the main land, where they found the boy in the spot where he had been formerly left. After taking him into the canoe, the young man again addressed the magician: "My grandfather, will you go and cut me a few of those red willows on the bank? I wish to prepare some kinakinic," (smoking mixture.) "Certainly, my son," replied the old man, "what you wish is not so very hard; do you think me too old to get up there?" And then the wicked old fellow laughed loud, ha, ha, ha!

No sooner was the magician ashore than the young man, placing himself in the proper position, struck the canoe, and repented the charm, "N'Uhemau Pal!" and immediately the canoe flew threw the water on its passage to the enchanted island. It was evening when the two brothers arrived, but the elder daughter informed the young man, that unless he sat up and watched, keeping his hand upon the canoe, such was the power of their father, it would slip off from the shore and return to him. The young man watched steadily till near the dawn of day, when he could no longer resist the drowsiness which oppressed him, and suffered himself to nod for a moment: the canoe slipped off and sought the old man, who soon returned in great glee. "Ha! my son," said he, "you thought to play me a trick; it was very clever my son, but you see I am too old for you." And then he laughed again that wicked laugh, ha, ha, ha!

A short time afterwards, the youth, not yet discouraged, again addressed the magician. "My grandfather, I wish to try my skill in hunting: it is said there is plenty of game in an island not far off. I have to request you will take me there in your canoe." They accordingly spent the day in hunting, and night coming on, they set up a lodge in the wood. When the magician had sunk into a profound sleep, the young man got up, and taking a moccasin and legging of Mishosha's from where they hung before the fire, he threw them in, thus retaliating the old man's artifice upon himself. He had discovered by some means that the foot and the leg were the only parts of the magician's body which could not be guarded by the spirits who served him. He then besought his Manito to cause a storm of snow, with a cold wind and icy sleet, and then laid himself down beside the old man, and fell asleep again. Consternation was in the face of the magician when he awoke in the morning, and found his moccasin and legging gone. "I believe, my grandfather," said the young man, with a smile, "that this is the moon in which the fire attracts; and I fear your garments have been drawn in and consumed." And then rising and bidding the old man follow, he began the morning's hunt. Frequently he turned his head to see how Mishosha kept up. He saw him faltering at every step, and almost benumbed with cold; but encouraged him to follow, saying, "We shall soon be through the wood, and reach the shore,"—but still leading him round-about ways, to let the frost take complete effect. At length the old man reached the edge of the island, where the deep woods were succeeded by a border of smooth sand, but he could go no farther; his legs became stiff, and refused all motion, and he found himself fixed to the spot; but he still kept stretching out his arms, and swinging his body to and fro. Every moment he found the numbness creeping higher and higher: he felt his legs growing like roots;

the feather on his head turned to leaves; and in a few seconds he stood a tall and stiff maple tree, leaning towards the water.

The young man, getting into the canoe, and pronouncing the spell, was soon transported to the island, where he related his history to the daughters. They applauded the deed, and agreed to put on mortal shapes, become the wives of the two young men, and for ever quit the enchanted island. They immediately passed over to the main land, where they all lived long in happiness and peace together.

In this wild tale the metamorphosis of the old man into a maple-tree is related with a spirit and accuracy worthy of Ovid himself.

For the Pearl.

#### ON MATTER.\*

OF THE PROPERTIES OF MATTER AND THEIR APPLICATION TO THE PRODUCTION OF THE TIDES.

The tides are so retarded in their passage through the different shoals, and otherwise so variously affected by striking against capes and head-lands, that to different places, they happen at all distances of the moon from the meridian, consequently, at all hours of the lunar day; and it is found, that at several places, the tides, or high water, are three or four hours before the moon comes to the meridian; but that tide, which the moon pushes, as it were, before her, is only the tide opposite to that which was raised by her when she was eight or nine hours past the opposite meridian, and although none of these circumstances should prevail in retarding the tides, it will be found that they do not immediately correspond with the moon's meridian altitude, but are at the greatest height two or three hours after the moon has passed the meridian. The cause must be some time in operation before the effect is produced. These concurring circumstances are ample proofs of the tides being produced by the laws of gravity. But what has been considered as the most curious phenomena, with regard to the tides, (and that which it is the principal design of this address to explain) is the very remarkable elevation and depression of them in extensive inland-bays, in contradistinction to what takes place in fresh water lakes. It has often been stated that the flow of the waters in the Bay of Fundy (which is perhaps the most remarkable for its tides of any place in the known world) is occasioned by the circumstances, that the mouth of the Bay is extremely wide, and that the banks at the opposite sides gradually converge and approach to each other as the flood enters the Bay, and passes up the channel; and that the waters being by that motion brought in contact with the banks at each side obliquely; they are therefore thrown more and more into the middle of the channel, and by such accumulation, cause the tides to rise much higher than they would otherwise do. But as water, in seeking its level, will never rise above the fountain from whence it springs, and as the momentum cause of its motion does not depend upon its broad surface, but only upon its perpendicular height, it would follow that from this principle alone, tides would not rise to greater heights in the Bay than outside. But the circumstance of the broad expanse of waters outside the mouth of the Bay, and the converging portion of its banks narrowing the limits as you proceed upwards, are circumstances extremely favourable for the operation of that principle which produces the tides; and although the maximum joint effect of sun and moon's attraction upon the ocean, acting in direct opposition to gravity, has not been known to produce tides, of flood and ebb above and below the independent equilibrium of the waters, of much more than five feet; yet in the Bay the total amount of ebb and flow has been known to exceed sixty feet or thirty feet flood, and thirty ebb in many parts of it. This will, however, cease to be very wonderful, when we consider that man's ingenuity, by the aid of mechanical powers has, by small means, produced many wonderful effects which could not have been accomplished by any other means within his power; and, as nature may employ such means in accomplishing her ends, we will upon this admission be at no loss to account for the extraordinary tides in the Bay; for, taking the maximum elevation of half tide outside at five feet, and that in the Bay at thirty, the perpendicular elevation in the Bay above a horizontal plane will be twenty-five feet, and the surface of the water, at high water, will be an inclined plane ascending inwards, and that of low water, ascending outwards; and, if we would take the length of the bay at one hundred miles, the perpendicular elevation would be but three inches to a mile, of the plane's length; but if we should take only the fourth part of the length of the Bay, at twenty-five miles, we will then have the perpendicular elevation of the plane equal to one foot in a mile, or as 1:5280; and as the mechanical power of the plane is in the ratio of the length of the plane to its perpendicular height, the action or momentum of one pound weight, by the direct force of gravity, would balance 5280 lbs. upon the plane, but the power of acting in the direction of the plane (for the east and west course of the bay is in the most favourable line of direction) is the same which produced a tide in the ocean equal to five feet perpendicular height, without the aid of mechanical power.

\* Concluded from our last.