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CÆSAR:



THE

WONDERFUL DOG.



THE STORY

OF

A WONDERFUL DOG

WITH

*Some Notes on the Training of Dogs
and Horses.*

ALSO, HINTS ON CAMPING, BUSH AND MOUNTAIN EXPLORATION
IN NEW ZEALAND.

By A. Reischek, F.L.S., Naturalist.

DEDICATED TO THE PEOPLE OF NEW ZEALAND.

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INTRODUCTION.

Dogs were known from the earliest times. Their remains have been found with stone implements, showing that they were contemporaries of our ancestors in Europe, when the tribes peopling that Continent were savages. We have no means of ascertaining for what purpose dogs were used in those days, but the contiguity of their remains to those undoubted relics of man leads us to believe they were domesticated, and one would naturally suppose that they were employed for the chase and for protection. By the Egyptians, Greeks, and Romans, dogs were held in high esteem, and many old writers—as Homer, Plutarch, and Plinius—mentioned the fidelity and utility of these noble animals. The dog is the most intelligent of all the brute creation, and the best and most faithful friend of the human race. His master or mistress is the sole object of his devotion. He will hunt or carry, defend or lead them until he dies. All this he does, not out of fear, for the pluck of the dog has been often recorded; nor on account of hunger, for he is gifted with many natural advantages—such as a keen scent and his fleetness—he does all out of love and affection to his master, and in return very often gets ill-treatment through the want of feeling, through greed, or ignorance of men, many of whom think that because their ill-usage is only directed against a dog, it is of no consequence—an animal is without feelings. But in many instances, as I will show later on, dogs are superior in their moral sense, and more humane than their masters. In

the following pages I have told the story of a wonderful dog, my dear old friend and faithful companion, Cæsar, in the hope of exciting a more intelligent interest in animals, and to secure for them better treatment. I have also added a few practical directions for the training of dogs and horses, based upon a life's study of these fine animals, whose intelligence is generally underrated. If this little book is the means of securing better treatment for these faithful companions and servants of man, Cæsar's biography will not have been written in vain. And, irrespective of that, it has been a labour of love to place on record the unselfish services that have been rendered me by a creature which, though usually classed as far beneath the rank of humanity, exhibited throughout its life virtues which, in any human being, would command our highest admiration.


A. REISCHEK.

AUCKLAND, January, 1889.

CHAPTER I.

HOW I TRAINED CÆSAR.

Searching for a Good Sporting Dog—How I got Cæsar—His Education—Inculcating Habits of Cleanliness, Obedience, and Patience—Teaching Him how to Retrieve, to Carry Parcels, and Perform other Services—Overcoming his Shyness of Water—Accustoming him to the Gun.

N January, 1878, while I was engaged at the Christchurch Museum arranging the Zoological and Ornithological Departments, and instructing a taxidermist for that institution and for Dunedin, I devoted my leisure time to the study of the New Zealand birds. But in order to follow out my pursuit successfully, it was necessary that I should have a well-trained dog to discover the hiding-places of the feathered dwellers of the forests, especially the rare species. I bought several dogs, and with each one I received an assurance from its owner that it was "the best dog in the place," either as setter or retriever. The first one I took out chased the birds over the large sheet of water at Lake Ellesmere, a very good hunting place near Christchurch. He would not come back, either when I called or whistled, so I let him go. The next I got was a Gordon setter. I walked down to the place where the Avon flows out into the sea. On the opposite bank of the river were a number of waders. I shot some and sent the dog to retrieve. He swam across and ate them, so, of course, he was of no use. The other dogs were not much better, and I gave up the idea of getting a well-trained dog in the colonies for my purpose.

After I came back from an expedition on the West Coast I inquired for a well-bred pup, and was more fortunate in this, for I got one whose father was a thoroughbred Newfoundland, and his mother a well-bred retriever. He was two months old, and as ugly as could be. His legs and tail

were long, his head big and his body small. When my friends saw him they all laughed and remarked that I had got the ugliest dog in the place. I replied, "Who laughs last laughs best." I knew that when he was full grown he would be both a good dog and a pretty one, and I named him Cæsar.

I began with the training at once; his first lesson was cleanliness and obedience. I never permitted anyone to pet or feed him, and kept him always shut or chained up when he was not with me. When taking a walk I led him by a strap to teach him to follow close after me, and not run about. Next I taught him to lie down by pressing on him gently and holding him down, speaking quietly to him all the time. This I repeated until he would lie down when he was told. By holding his paw for some time I taught him to shake hands. On each occasion I asked him to "shake hands." Afterwards, I would not allow him to eat until I gave him permission. I told him to lie down, then placed his food between his paws and told him to "have patience." After keeping him in this position for some time, I permitted him to eat. Then I taught him not to take food from any one else unless I was there. I got a friend to offer him something to eat, and when he commenced to eat it I reproved him each time until he would not touch anything unless I gave him permission. I also got my friend to strike at me while I held the dog, when he growled and tried to jump at my friend. I petted him and said he was a good dog for defending his master, and very soon he would not permit anyone to touch me.

I made a soft oblong ball, which I showed to him, then put it in his mouth, let him carry it for a time, and then I threw it a short distance. As soon as he saw me throw it he naturally ran after it, and brought it back. Having taught him in this manner to retrieve, I threw him a bird to bring, but when I got it out of his mouth it was like a pancake—crushed up bones and flesh together in his strong jaws. I then got another bird and placed pins in it, so that if he took it up gently it would not hurt him, but when I threw it he made such a grab at it that the pins ran into his mouth, and he howled and came running back to me to extricate them. Afterwards I threw it again, but he would not go near it until I took the pins out, and then he brought it back very gently. I taught him in this manner until he

would carry an egg without breaking it. When I had a light parcel I gave it him to carry, and took care that he did not put it down. At first I only allowed him to carry it for a short distance, and increased the distance gradually, until he would carry it anywhere I desired. If I left a parcel at a shop, or lost anything, I would send him back, and tell him that I had lost something. At first he did not understand me when I said, "Cæsar, I have lost something," so I threw some article I had on my person a few yards away, and then told him to find it. When he did not understand me I took him to it and showed him the object, and then, when he found what I had lost, I petted him. When leaving a shop I placed a parcel within his reach, and showed it to him. After we had gone a distance from the shop I sent him back, and very soon he knew what I wanted him to do. Then I placed a parcel in a shop without letting him see me, and when we were a short distance from the place I said, "Cæsar, I have left a parcel ; go and bring it." Soon he became quite proud to be sent back for a parcel.

When he was a pup some children threw him in the water and nearly drowned him, which made him water shy. One day I threw his ball into the water, but he ran home and hid himself in his kennel. So I starved him a day. Then I took him again to the water, and threw a piece of bread in where it was shallow. He went in and secured it, and I continued to feed him in this way, throwing each piece further out until he had to swim for the bread, and so persevered with him until he lost his fear and delighted in going into the river. Once I threw a small bird into the Avon for him to retrieve, but when he made a grab at it it went down his throat, and he was so afraid of being punished that I had great difficulty in getting him to come out. Next time I threw a large bird into the water, which he retrieved well.

To accustom him to the gun I first snapped several caps, of which he took little notice, but when I fired a charge he endeavoured to decamp, but a line by which I had secured him as a precaution prevented his escape, so I petted him and shot again until he stood firm. To teach him to set, I led him on the line to where birds were plentiful in cover. As soon as he drew on I let the line go out. He put up the birds. I made him lie down, followed the birds up, and as soon as he drew on again, I held the line stiff to teach him patience.

When he stood well I made him work by signs, by pointing with the hand or gun in the direction I wanted him to work, turning myself the same way, and very soon he understood what I wanted—to range, drop, or lie down until called.

The last lesson I gave him was to watch a place or an object in my absence. I told him to lie down, then I placed a parcel between his paws and asked a friend to take it from him. When he growled I petted and encouraged him. In this manner his education was completed. I always was kind to him, but firm, and did not repeat his lessons too frequently, lest he should weary of them.

CHAPTER II.

THE RESULT OF CÆSAR'S TRAINING.

Cæsar's Extraordinary Powers of Imitation—Catching Butterflies and Live Birds—Encounter with Wild Cattle—Outwitted by a Greyhound—Cæsar's Resentment of Unmerited Punishment—Fierce Encounter with a Wild Boar—His Keen Intelligence in Interpreting Signs—How he Watched the Camp and Gathered Firewood—His Intolerance of Incapable Sporting Companions—His Power of Following an Indistinct Track—Respect Paid to Cæsar by the King Natives—Encounter with a Burglar—Hunting Wallabies at Kawau.

THE result of Cæsar's training was that, when several months old, I took him out hunting. We followed down the Avon to Brighton, near Christchurch, to the Forty-mile Beach, where there are a number of lagoons frequented by various water fowls. Cæsar went into a swamp. Soon after he had gone I heard a screech and a howl. On going in I saw that he had a lovely variety of swamp-hen in his mouth, which he was trying to get rid of, for the bird had hold of his lip with its bill and claws. After I had extricated the bird I would not allow him either to go after or retrieve a bird unless I told him. When setting, I gave him a sign to lie down, and he remained there until I called him.

I have had many dogs during my sporting experience of more than thirty years, and have known a large number of dogs belonging to my friends in the various forest departments, but I have never heard of one which would imitate so readily as Cæsar did. Once when he saw me catching butterflies he tried to catch some, and brought them to me in his mouth. In 1879 I was staying with Mr. Neaves, at the beautiful Rakaia Fork Station, which forms an island between two rivers at the foot of Mount Alcidus. The buildings are surrounded by a flower and fruit garden, which would do credit to any nursery in town. On this place I and Cæsar had many a stroll and scramble. One fine afternoon the dog came to me and looked up into my face with his beautiful brown eyes, as he always did when he brought me anything. I said, "Well, Cæsar, what have you got?" and held my hand out for it. When he opened his mouth a grey warbler flew out and perched on a branch, and whistled his warbling notes. The dog seemed disgusted that I had not got it, first looking at me and then in the direction in which the bird had flown. At another time, in Oxford Forest, I was molested with half-wild cattle, which came at me, tossing the ground and bellowing. Having only a shot gun, I dared not shoot at them, for if I happened only to wound one and not kill it, the enraged animal would have turned on me. I stood facing them, Cæsar standing by my side, until one of the beasts made a rush at me. Then Cæsar made such a savage and sudden jump on it, catching the animal by the nose that he nearly threw it, and scared the whole herd, which ran away into the thick of the forest, thus saving me from an unpleasant acquaintance with their horns.

He once surprised my friend Sir Julius von Haast, the late Director of the Christchurch Museum (with whom I have spent many a pleasant evening at his house during my stay in Christchurch, little dreaming that he was so soon to pass away to the world of peace; he will be long lamented by his friends, and never forgotten by the public, for the energetic work and service he has rendered to the Christchurch Museum, which was his pride). One day Dr. von Haast had invited me into his garden to pick cherries. As we were getting them off the trees, Cæsar stood watching us for some time. Then he commenced to get them from the lower branches, and ate them himself.

When mounting large animals I sometimes had to work day and night to save the skins from decomposition in this mild and moist climate. As the skin has to be first softened before it is put over the model, I inhaled a good deal of poison, for I could not always work with the mask on, as it was too hot. Once I felt very bad and sleepy, so I intended to lie down in the garden for half-an-hour. Before doing so, I told my assistant, Mr. Sparks, who is now taxidermist at the Christchurch Museum, that he should not let me rest longer than half-an-hour, and should awake me if I was asleep. Cæsar and my terrier, Fanny, lay down near me. Being tired out, I quickly fell asleep. A great noise awoke me, and on opening my eyes I saw Sir Julius von Haast and my assistant trying to rouse me up, being anxious lest I had inhaled too much poison; and as I did not hear them calling they endeavoured to examine me. Every time they got near, however, and wanted to touch me, Cæsar and the terrier attacked them savagely. At other times Cæsar was a great friend with both gentlemen, knowing them from his puppyhood. On another occasion, after lunching together, Sir Julius von Haast and I came out talking about Cæsar's exploits. Sir Julius, in fun, shook his fist, and the dog, imagining he wanted to hurt me, pounced upon him; but I had the animal so under control that one word or a sign was sufficient.

My work-room stood in a garden between the Museum and College ground, fenced in, with a gate, on which was written the word "private," but boys and people sometimes came in, so I taught Cæsar to watch the place when I was engaged in grouping or arranging animals or birds in the Museum. Cæsar would let the people come in, and follow them, but as soon as anyone touched anything he would stop him. If he tried to get away, the dog would knock him down by jumping on him, and if he moved would take him by the throat. One morning when I was busy in the Museum, I heard the dog barking. On going out I saw the carpenter bailed up. It appears that he wanted to take some timber away, and Cæsar had stopped him.

When the newspaper or postman came, Cæsar would take the letters or paper in. If he lost one he would return for it. He very often had to take his food made up in a parcel to the Museum, and if other dogs molested him he would take no notice, unless they got too impudent; then he laid his

parcel down and gave them a shake, but as soon as the other dog gave in he let him alone. On one occasion a greyhound molested him, snapping at him. Cæsar as usual laid his luncheon down, and the greyhound picked it up and made off with it at full speed. Cæsar, enraged, went after him, but soon saw that he was beaten, and returned ashamed and disgusted at his being taken in, especially when I laughed at him, which he could not bear.

Mr. Stratz, a jeweller in Christchurch, who often accompanied me on my hunting expeditions during the time when Cæsar was a puppy, declared that I should not take the dog so far, and he would pick Cæsar up and carry him. The dog soon made a slave of him. When he felt tired he would lie down in front of his feet and whine until my friend took him up and carried him. When Cæsar was grown up, my friend and I went to the lagoons at Brighton. He asked me to leave the dog with him to fetch the birds out of the water; so I told Cæsar to stay with him, and I walked down the sandspit. After a time, the tide coming in, I returned, and on my way met Cæsar. When I asked him where my friend was, he went on till we came to a large lagoon. Then he barked at me, and looked in the direction of the lagoon. Following the indications he gave, I saw my friend up to his neck in water carrying out birds he had shot. When I asked him why he did not send the dog in for them, he said he did, but the dog would not go at once, so he gave him a kick. Cæsar was accustomed to be kindly spoken to, and he would not work in any other way. Once I scolded him and told him to follow up a scent. I waited for him to come and show me where the kakapo (*Stringops habroptilus*), a large green night parrot, went into the burrow. As he did not come I looked for him, and to my surprise I found him lying down a few yards from where I was waiting. After I found out that I had scolded him unjustly, I spoke to him in a kindly tone, and he went off with delight to perform his work.

Being always my companion he understood every word I said, and also could read my face. If I was annoyed, pleased, or unwell, he would make his sympathy manifest. When I went out pig-hunting, if he got a little pig he would retrieve it; a large one he bailed up until I came and told him to hold it or let it alone. On one occasion a surly boar would not go out of my road, so I gave him a charge of

shot. He disappeared ; the bush was very dense, grown over with gigi and cutty grass. Walking along I heard a noise, and at the same time was knocked to the ground by the boar, but Cæsar jumped with such force at the infuriated beast that he received a nasty rip. When I got up I fired my second barrel at the boar. Then Cæsar and he disappeared altogether. After loading my gun again I discovered a trail of blood, which I followed up, and then called to Cæsar, who answered with a low growl near by me. Moving a quantity of gigi and griper aside, I saw the boar sitting upright on his haunches, staggering, and Cæsar holding on to his ear. As soon as the dog saw me he pulled the boar over, and I killed it with my knife. Having finished our enemy, I examined Cæsar and found extensive wounds on him, which I bound up. He manifested the greatest coolness, and kept perfectly still during the operation.

After I left the Christchurch Museum I devoted the whole of my time to research, studying the habits of New Zealand birds. During this time Cæsar was my constant and oftentimes only companion, and sometimes the protector of my goods. Without his assistance I should not have been able to study the habits, etc., of many specimens of rare birds. When we went out hunting, he got so knowing that he knew whether I wanted him to set all the birds or only ground btrds, or none at all. When I carried the gun he would set every bird we passed, whether flying or up in the trees or in holes. When I had no gun, but only a tomahawk, he would only set the birds on the ground, and when I went out without a gun or tomahawk to study birds, he would simply walk by my side. Immediately I raised my hand he would lie down quietly while I watched the movements of the birds. During the eleven years I had Cæsar, he never set falsely for a single bird, and he would bring even the smallest bird without injuring a feather.

Sometimes when shooting in a swamp, and I had killed a few birds, I told Cæsar to let them lie till we came back. Often I could not find them, or I passed the place on purpose to see if he remembered, but he would invariably bring them without waiting to be told. He could remember how many birds I shot. As soon as I finished shooting, and I said, "Cæsar, we go home," he would smell all the birds I had carried. Often I would throw some away without

letting him see them, but I never could deceive him. He would go back and bring every one.

When following birds for the purpose of studying them, I very often laid my gun down, and when I came back could not find it, but I only had to say, "Cæsar, I have lost my gun," when he would hunt out the place where I left it, and bark to draw my attention.

When I had an assistant with me, and went out hunting alone, on coming back I would send Cæsar ahead to tell my friend I was coming, or if I were working away from the camp, cutting tracks or clearing bush, I generally left Cæsar at home. When my companion had breakfast or lunch ready, he would send the dog to bring me. The first time he did this, I did not understand what the dog meant. He came running up to me, looked in my face, and turned to go to the hut. When he saw I did not follow him, he came again and pulled me by the shirt sleeve, and then turned to go away. When I returned to the hut I said, "Cæsar wants me to go somewhere with him," and my companion said, "Oh, I sent him for you to come to lunch." Afterwards I knew what the dog meant when he came to me in that manner.

When I was camping alone in a northern district of the North Island I had my hut built beneath a pohutukawa tree, and I left Cæsar in charge of it during my absence. When he saw me coming home he would come to meet me. One day he did not come as usual, and when I got to the hut I saw Cæsar standing outside and looking up a tree. I followed the direction of his eyes, and seeing a native, told him to come down, but he would not until I held the dog. He said, "I looked into the hut, but the dog made for me, so I went up the tree and dared not come down." Afterwards, no native would come near my camp.

He was also useful at the camp to gather firewood. In the morning he would bring out my boots and hat, and in the evening my slippers, and would watch objects. Once I told him to take care of a few birds. The blow-flies, which are very numerous in this country, would settle on them to deposit their larvæ. Cæsar endeavoured to drive them away, but they always returned, so he picked the birds up, laid them together, and laid himself on top of them.

When carrying a heavy swag, Cæsar would never permit me to carry anything in my hand. He would take it from

me and carry it to the camp. Sometimes I would give him a bird to carry, and lay others down and say, "Cæsar, you go with this to the camp, and then come back and bring the others." He trotted off and put his bird in a safe place, and returned for the others, often several miles distant.

During the night, when I was asleep, and there was some danger approaching, he would warn me. On the west coast of the South Island the only place for camping was a rise alongside a torrent, where I put my tent. Being very tired I slept soundly, undisturbed by all the noise from the boulders coming thumping down in a fresh. Cæsar came in and pulled my blanket, growling at me, and when I got up and went outside the tent I saw the torrent flooded, and the water nearly up to the tent. Fortunately, it had left off raining, otherwise I should have been swamped. If I pretended not to hear Cæsar, he would pull my hair. He knew all my friends in town, and would sometimes pay them a call alone.

When hunting with a second dog, and he would not work properly or bit a bird, Cæsar would give him a shaking, and take the bird from him. On the Hauturu Island, when camping with natives, I shot a kaka. Cæsar went to retrieve it. He brought a half bird, gave it to me, and went away in a hurry. A short time after I heard a great yelling, and proceeding to the spot whence the sound came, I saw Cæsar punishing a Maori mongrel, so I called; he came, barked at me, ran a short distance, and looked back to see if I was following. I did so, and he stopped below a tree. When I came there he pointed to the ground, then look at me as if to say, here are the feathers, which were scattered about, where the dog I have just punished ate the bird. If I shot a bird in the water, and another dog would not be gentle with it, Cæsar would take the bird from him, and if the other dog would not let go, he would push the dog's head under water, then retrieve the bird.

In Chalky Sound I had a beautiful retriever dog with me, well-bred, but she had many bad habits. I will give a little anecdote about this dog. My companion, who delighted in sport, asked me if he could go out hunting. Of course Cæsar only went with his master, so he had to take Nell. I told him that as soon as the dog got on a scent he should lead her by a long rope, and when she set at a burrow, to

tie her up. Early the next morning he shouldered his bag, took the dog on a long rope, and went off in delight, imagining what a fine day's sport he would have. I stopped near the camp, clearing bush. About midday it began to rain, and about three o'clock in the afternoon I saw a figure approaching. To describe it would be difficult—the shirt hanging down in ribbons, the legs of the trousers slit open, waving about in the breeze like a petticoat, exposing the bare skin. It turned out to be my friend, looking as sour as if he had been made to drink vinegar. The dog which he had also looked a picture of misery, with his head down, his tail between his legs, creeping after him. I called out, "Halloo, how did you enjoy your outing?" He murmured something between his lips which I did not understand, then he said, "Had this dog been mine I would have killed it," at the same time pulling out of his bag a bird mangled. It looked as if it had gone through a variety of processes. He told me that as soon as the dog got on to a scent he began to rush about, and pulled my mate over all kinds of objects and places. At last he came to a burrow, where the dog stopped, so he tied him up and began to dig the bird out with a tomahawk. But the dog wanted to assist him without asking his master's leave. He extricated himself and began to work to get the better of his master, in which he easily succeeded by the help of his nose. After a wearisome labour my companion felt the bird, but when he tried to pull it out it would not come. On opening the place more up he found the dog holding on to it. As this was his first experience in the New Zealand forest he bore it like a man, and looked forward to having more success the next time.

In the same place I buried birds in the sand for the sand-flies to eat the meat off. Several times I missed one or two. Cæsar, I knew, would never injure them, and the other dog was only let loose half-an-hour a day. One day I told Cæsar to watch that spot, and let the other dog off for a run. Very soon I heard a tremendous yelling; Nell came back with her tail between her legs. She ran into her cave, where she was chained, Cæsar coming after, and barking. When I went to the skeletons I found one rooted out which Nell wanted to take to her cave, and Cæsar punished her for it. From that time I never liked this dog, as I make it a practice to feed my dogs well, and always take plenty of provisions with me for them.

Cæsar was not very fond of other dogs, but he made an exception in favour of a Scotch terrier I had once owned, and had given away to a friend. When the two dogs met they showed their mutual affection by licking each other. The terrier would then take Cæsar to his own home and bark until his master or mistress gave Cæsar a feed, and while he was enjoying his meal the terrier would quietly sit by watching his friend with silent enjoyment.

In 1879, I searched the country between the Kaipara and Hokianga River, which is a large estuary near the ocean. Between the high sandhills there are pretty freshwater lakes, which abound in water-fowl. Further inland the hills and table-lands are grown over with fern and ti-tree. In the valleys are numerous swamps, some of considerable size, grown over with raupo, the haunts of bitterns. On this extent of land are innumerable tracks made by horses, cattle, and sheep, crossing each other ever so many times. As there are no houses, while travelling in the night I had to depend on Cæsar to show me the right track to my residence or camp, and he would always lead me the nearest direction. If there were holes, swamps or other obstacles in the way, he would show me them by standing still or growling.

In 1882, when I was camping on the Hauturu Island, north-east of Auckland, the natives to whom this island belongs told me of a kaka nest. In order to get there I had to climb along the cliffs on a track which was very narrow, in some places being only a foot wide. When I got there the birds had only just been hatched, but were dead. I brought them away, and the natives who camped near wished me to stay the night with them, since the track was dangerous to travel on in the dark, but I knew the birds would be spoiled in the morning if they were not skinned, so I had to make for my camp, taking Cæsar as my guide. On the bad places I followed him on my hands and knees. Once I could not see him and called out "Where are you?" and he came to me walking backwards till I felt his tail in my face. After going a distance on the boulder shore I heard the dog barking, and found that the tide was up to the point.

At low water this point can be passed, but not at high water. Behind me the tide had come up, before me was the sea, and on my side was the steep point. I had no alternative but to climb along its side, hanging on to any stone that was jutting out, and just as I was in the most

critical position Cæsar left me, and did not come back until I was half way to the camp. When I got there I asked my companion if Cæsar had been there. "Yes," he replied, "he came and barked, then ran off; then he came and barked again, and ran off, but I did not know what he wanted." I told my friend that he ought to have understood that the dog wanted him to come to my assistance, and if in future the dog came without me, it was for his help. My companion was asleep when Cæsar came to the camp, and the dog woke him up twice.

Twelve miles south-east of Whangarei Heads there are several uninhabited islands, mostly covered with thick bush, and to one of these the late and much-respected Mr George McLeod took me and Cæsar, in 1880, in his boat, and left me there for three weeks. While I was on the Taranga Island making researches, a heavy fog came down, and as I had no track to the camp, and no compass with me, I had to climb along the cliff by the seashore. In one place a stone gave way and I fell, and slipping down a cliff the butt of my gun became entangled in a creeper, so I hung on to the barrel. Holding the gun firmly with the right hand, I grasped some roots and swung myself aside. One barrel went off, the shot going past me. Extricating the gun, I took the other charge out. By this fall I hurt myself internally, but was able to get to the hut, suffering dreadful pain. I had a bad night, and the roaring of the surf breaking on the rocks, with which this island is surrounded, made it more weird and melancholy, and I was glad when daylight appeared. I tried to get up, but could not, so I crept outside the whare and looked out over the ocean to ascertain if I could see a vessel passing near, in order to signal her, but the weather was so bad that the few passing vessels kept far off. Cæsar was my only companion. For four days I could not stand upright, nor could I eat, and I had to creep on my hands and knees to the creek for water to make me a little soup. During all this time Cæsar would eat nothing, and sat by me whimpering. On the fourth day I was a little better, and when he saw me better able to move about, he jumped around and in every way possible showed his delight at my recovery.

On a second visit to these islands, in 1882, with my friend Dobson, we spent four days making a safe landing-place on the southern side, and then I commenced to make

researches. As the island is very difficult of ascent to inexperienced persons on account of its steepness and loose stones, especially in wet weather, I left my mate at the camp and went off with Cæsar. The weather was rough, it was raining and blowing constantly, and the mountain sides were very slippery. When climbing up I lost my footing, and caught hold of a tree to prevent me from falling. The tree broke, and the next thing I was conscious of was feeling something on my face and hearing a whimpering noise. It was Cæsar who licked my face and whined, and when I got up he showed the same pleasure as he always did when he saw me out of danger. The tree was rotten and had broken in two, falling on my head and stunning me. How long I had been unconscious I do not know, but I suffered severe pains for six days.

At Morotiri Island, Cæsar retrieved live tuatara, a large lizard, which is now extinct on the mainland. Once he brought one to me without its tail. I said, "Cæsar, where is its tail?" He looked at the lizard and then ran off, and after waiting for him some time, he came back with the lizard's tail in his mouth. Mr. Stuart, of Whangarei Heads, who accompanied me as assistant, was greatly astonished, and said he would not have believed that a dog could display so much intelligence had he not seen it himself.

One night I was riding a young and restive horse from Matakoho to Mr. Evans'. When I reached his house, Cæsar came to me and dropped my purse in my hand. It had fallen out of my pocket without my noticing it, through the horse jumping about. At the same gentleman's house I left Cæsar for a few days, and forgot to tell him that I would call for him. Knowing that the dog was in very good hands, I rode on to Mr. Coates'. After staying there a few days, I heard that Cæsar had made his escape. So I rode after him and found out that he went into every settler's house where I had been staying, looked round, and as soon as he had assured himself that I was not there, he went to another place. He was offered food, but would not take any. When he came to Paparoa he went to Mr. Wilson's, the schoolmaster, where I had left a box. There he stopped and took food from the children. As I rode up to the house and jumped off the horse, he nearly knocked me over with excitement, being so pleased to meet me again.

It was always my wish to get into the King Country before it was opened to Europeans, to study the natives, their costumes and habits. In January, 1882, a friend introduced me to Tawhiao, Wahanui, and other chiefs, one of whom (Hemera te Rerehau) was very pleased to see me, especially when he heard that I was acquainted with Dr. von Hochstetter, who is not alone held in high esteem by Europeans, but also by the Maoris, who have not forgotten him. Hemera invited me to come to his place at the Mokau, so I prepared at once and left for Alexandra. On arrival there I was told by the natives that I must not cross the boundary. The chiefs had a meeting, and through the kindness of Wahanui, Te Witiora, and others bringing my matter before Tawhiao, the Maori King, after three days' waiting, I was permitted to cross the boundary with Honana Maioha, a Ngatimahuta chief, who brought a horse to carry my packages to the Kopua. After having packed the horse, he gave it in charge of a native boy. The Maori tracks are very narrow, and on either side are overgrown with high ferns. The boy was rather careless, and the horse feeling the packages catching in the branches, bolted. I sent Cæsar after it, and he stopped it on the opposite side of a river, but the saddle was lost and all the packages gone. I sent Cæsar for them, and he brought everything he could carry, and any article he could not lift he stood by it, and barked until we came for it. When I examined my packages I found everything there except one book, which I sent Cæsar for. When he came back with it the chief said, "This is not a dog, but the spirit of a man in a dog's body." The first time the chief was at the runanga, the Maori meeting house, he told all the Maoris of the wonderful dog, and praised him so much that afterwards the natives venerated him and gave him the best of their food, while at the same time their own dogs were looking on. I often took the food from Cæsar and gave it to them.

The last time I visited the King Country I went to the settlement without the dog, and the Maoris made many anxious inquiries about him. Cæsar has also not forgotten his friends, which had treated his master and him so extremely well, and with so much courtesy, and every time he saw one of his Maori friends in town he would go and rub his shaggy head against him.

During my stay in the King Country a Maori boy, who

looked after the horse and sometimes accompanied me on my expeditions, did not approve of my early rising. One morning I said to Cæsar, "Wake that fellow." He pulled the blanket off the boy, but as soon as the dog let go, the boy rolled himself up again, thinking he had the best of Cæsar, but the dog would not be beaten. He went then and pulled the boy out by his long hair. After this, every morning if the boy was not up when I got up, Cæsar would come into the whare and pull him up, but the boy did not want it after his first experience.

One evening I called on my friend Mr. J. P. McArthur, and we arranged to go next day by the afternoon train to the Waikato, as the shooting season was open, to get some sport. Cæsar, being a great favourite there, was sometimes allowed into the house. Lying under the table, he heard us talking, and saw us making cartridges. After saying "Good night," I went to my friend, Mr. Grainger, in Ponsonby, with whom I was staying, about two miles from Mr. McArthur's house. Next morning I got up early, placed my packages in the stable for George to take to town, and went down alone. Cæsar soon missed me, and went straight to Mr. McArthur's house. He came to the front door and barked, and, after waiting a short time, barked again. Mr. McArthur got up, and seeing Cæsar, said, "Where is your master?" But Cæsar ran past him, and looked in the room where we had made the cartridges. Not finding me there, but seeing my cartridge bag in the hall, he lay beside it and waited until I called at noon. My friends were highly amused to think the dog should be so determined.

When we arrived at Alexandra, we found Mr. Houton there, who accompanied us to the Pirongia. We all went out shooting, and Cæsar was very busy retrieving, taking on the sly the pigeons which Mr. Houton shot and bringing them to me. The latter gentleman being a friend of mine, I rather enjoyed the fun. But at last he shot a pigeon which dropped dead, and he was just about to pick it up, but Cæsar was quicker. He wanted to take the bird from him, but Cæsar growled. On returning to our camp, I asked my friend what sport he had had. He said, "Don't ask me; I have missed nearly every bird, and the last, which dropped down in front of me, Cæsar made off with." It surprised him when I gave him all the pigeons he had shot. He did not miss one, being a good marksman.

When Mr. McArthur was away from Auckland on business, during his absence Mrs. McArthur wished to have Cæsar with her in the house, but he never liked to be away from me. However, when I told him to stay and wait, he would do so without a murmur. While at Mr. McLeod's place one night, I was roused up after twelve o'clock by a noise in the yard. I immediately dressed and went down, and found a man lying on the ground, Cæsar standing over him, and Nipper, another fine large dog belonging to Mr. McLeod, alongside him. I asked him what he wanted there so late at night, and he pretended to be drunk, so I ordered him away. Afterwards I went to bed, but I soon heard Cæsar barking again. On going out, I saw the same man leaning over the gate, and cursing most frightfully at the dog. I ordered him off again, but he said he was on the public road and would leave for no one. I then went for the police, but as soon as he saw me going he ran away, and I saw he was perfectly sober. Another time a notorious burglar molested some of my friends, and Cæsar was several times after him. Once he would have caught him, had he not got over a fence, and I stopped the dog from going after him into other people's property. This same man got caught afterwards by the police, and is still suffering in jail for his deeds.

Sir George Grey kindly invited me to his beautiful island of Kawau, and gave me permission to shoot wallabies, which were so numerous that they destroyed the fruit and vegetation around the house. At first I could shoot them easily, but soon they became very shy, and I had to send Cæsar to bring them within range. When he got on a scent, he followed it up until he drove the animal to me. I stood behind a tree, waiting, and as Cæsar brought them up I shot them. In six weeks I destroyed over five hundred. Once when I fired at a large black wallaby and wounded it, Cæsar sprang on the animal but missed his grip, and the wallaby got hold of Cæsar's face with his teeth and endeavoured to scratch him with his claws. I ran and pulled at its tail, causing it to let the dogs go, but it then tried to bite me and would have done so had I not struck it across the head and killed it, breaking, however, the stock of my gun with the blow. Afterwards, Cæsar only sprung on them from behind, where he could get a firm hold. I also fired from a long distance at a large male which was on the cliffs and wounded it.

Cæsar sprang on it and they rolled down together. I tried to get down and help the dog, and also slipped down, fortunately alighting on the sand. The animal was out in the tide and Cæsar guarding him. The first time the wallaby was off its guard Cæsar sprang on its neck and pushed its head under water, keeping it there until it was drowned, and then he dragged the animal ashore.

Notwithstanding that he was so large and heavy, Cæsar was fleet and active. He caught several wallabies when he got them in open spaces. He also could climb like a goat. We managed to get up cliffs in this way. He would put his front paws on a ledge, then I gave him a shove and he waited until I climbed up, then I helped him on again. In this manner we have climbed over many a place. To get down a cliff was more difficult. I tied a rope round his body and neck, then let him gently down and followed him. When crossing a swamp I tied ti-tree or raupo together in bundles, and threw it in, then told Cæsar to jump on it; afterwards I got on and threw another bundle further, which he would again jump on and wait for me, and in this way we crossed many swamps. When crossing rivers I said to Cæsar, "Go and see if there is quicksand." He would advance very cautiously, and if there was quicksand, return and look up at me in his way. But if the place was safe he walked into the water, stopped, and looked back to see if I was coming. As soon as it got deep he would swim round me till I told him to go on. But when I crossed a mountain torrent he would sit on the bank and watch me until I had crossed, and then he would jump in a place where there was a good landing in case the current should carry him down.

I will just add a few more examples of Cæsar's sagacity. If I said to him, "Cæsar, I am warm," he would take my hat off; or, if I said the same of any other person he would perform the same service for him. If a friend was walking some distance before me in the street or elsewhere, and I told him I wanted to speak to that gentlemen he would run in front of him, bark and look back at me. If anyone tried to run away and I told Cæsar to stop him, he would do so at once, and if the person did not take heed he would throw him down. When I had an assistant with me and I could not find him I had only to tell Cæsar, and he would at once find him for me. When he was told to watch any place he would not allow anyone to touch anything there or take a single thing away.

CHAPTER III.

DUSKY SOUND.

My Camp and Companions—Cæsar and Rover—Scenery at Dusky Sound—A Storm in the Mountains—Perilous Canoe Journey—Climbing Cliffs with Cæsar—How he Saved My Life—His Sagacity Prevents the Canoe from being Swamped—Adventures at Chalky Sound—Cæsar's Sorrow over the Loss of his Mate.

IN the winter of 1884, when camping in Dusky Sound, Mr. Doherty, who left his camp on account of not being well and went to Dunedin to procure medical aid, kindly offered me, during his absence, his huts and a small Maori canoe. So I was left in this lonely place alone with two dogs and a cat, one dog and the cat belonging to Mr. Doherty. Cæsar and the cat became great friends. She would go out hunting with us for miles, and very often sit on Cæsar's back. But the two dogs could not agree. Cæsar never forgave Rover, who was a sly and most cunning thief. His master once put a large junk of salt beef in soak, two feet under water, to draw the salt out. Knowing his dog's tricks, he took all the precautions possible. Rover was only a few minutes absent, but the beef had disappeared. I took him out hunting with Cæsar one day, and I missed him. I asked Cæsar, "Where is your mate?" He returned and then branched off the track into the bush. I followed him. We had not gone far, when Rover came up wagging his tail, as if nothing had occurred. I had no suspicions, but Cæsar wanted me to follow him, and very soon he brought me to a place where Rover had been digging, and under a gigi bush were the remains of a kakapo. So I punished Rover, and I had difficulty in keeping Cæsar from punishing him also. I took Rover to the camp, chained him up, and he never was allowed to go out alone.

Dusky Sound is a lovely spot for scenery. There is no other sound which has more variety. Milford Sound is grander and more imposing; Doubtful Sound has a larger sheet of water; but going into Dusky Sound one gets prettier

glimpses of scenery among the diversified islands, harbours, and coves. Still more charming is the view from the top of the mountain, which may be ascended along a good track leading up from Mr. Doherty's hut, which was lately constructed by Mr. Doherty, with some aid from the Government. To be upon this mountain when the Alpine flora is in blossom on a fine day is a glorious experience. The keen fresh air braces up the nerves and invigorates the system. Spread beneath our feet, thrown into an infinite gradation of lights and shadows, the rich New Zealand vegetation extends in billows of green, away to the ocean. There the dark blue waters of the Sound are dotted over with forest-clad islands, the shores environed by dark cliffs, some rising perpendicularly out of the water, which, in places, is over one hundred fathoms deep close to the shore. In the direction of Chalky Sound the horizon is girdled by rugged peaks, and looking inland, snow-clad mountains, magnificent in their silent grandeur, kiss the heavens. About two miles from this track is a precipice, over which one may kneel down until the head swims in the effort to fathom its two thousand feet of depth. Not alone the artist, but the geologist will find an interesting field in Dusky Sound. The variety of rocks and minerals is remarkable. There is also ample scope for the ornithologist. Several rare species of birds still inhabit the valley where mountain-fed streams break into lovely waterfalls. In winter the weather is very bad, rain and snow, accompanied by heavy easterly storms, being frequent. During my stay there, after I had experienced three weeks of very bad weather, the sky clouded over and I never saw the sun or a star; the sea roared, the wind whistled, the trees groaned in their ceaseless swaying to and fro, and now and then a forest king would come down with a crash; the thunder rolled, its echoes still reverberating in the distant mountains, when another peal repeated the sound, and held me awe-stricken by a sense of man's feebleness in the presence of the forces of nature. It was a wild but inspiring experience to witness such a storm on a dark night among those lonely hills with no human companionship to disturb the contemplation of Nature warring, as it were, with all her power until her forces were lulled into peace through sheer exhaustion. More impressive indeed, if that were possible, than the storm was the calm which followed it, speaking to

the soul with the still small voice—not a breath of air, not a quiver of a leaf recalled the fury of the elements which had preceded this sudden lull. I can never forget such a scene.

The weather looked fine, and I started off with the canoe to go to Resolution Island, about eighteen miles from my camp, but when I got down nearer Break Sea Sound, it began to blow, and very soon a heavy sea came up. It was too late for me to land, so I ran before the wind with my little craft, watching every large wave to steer accordingly; by constant watching I avoided swamping. I had put all my utensils in bags to be more quickly landed, and several got washed out of the canoe, but I dared not move to save them, having enough to do to prevent the canoe from swamping. Cæsar never moved during the whole day in this storm, as if he fully understood that a move would be fatal. In the evening I came opposite my camp, and it took me a long time before I could get the canoe in the right position to land, when a wave threw me on shore. Such of the contents of the canoe as had not gone overboard were mostly soured with salt water, and I was so exhausted that I could not move for several days. During that time Cæsar supplied me with fresh meat to make soup with. In the morning I would say, "Go and find a bird for your master." The first he brought was a penguin. I said, "This is no good," and took a skin of a wood-hen and showed to Cæsar. Off he went, and after about two hours' time, he brought a wood-hen, and so he supplied me until I was able to eat something else.

When I had to climb an ice-cliff, or walk over a snow or ice field, I tied a rope to Cæsar to prevent either of us slipping. At the top of the mountains in Dusky Sound I found a kakapo (a large green nocturnal parrot), which is larger in size and brighter in plumage than the common kakapo, also a roa (a large kiwi), varying from the common roa in size, and having longer feathers. My opinion was that they would only inhabit this high latitude during the summer months, and come lower down in winter. I wanted to ascertain if I was right, and to do this, I went up when all was snowed over. Coming to the steep side of a mountain covered with ice, I went and cut steps with my ice axe, to get across on hands and knees. When I was about a third part over, the ice broke with a tremendous crash, and I went sliding downwards. Cæsar, who was fastened to me

by a rope, managed to jump off the ice, and owing to the jerk which he gave, the ice shot from beneath me, and rolled over a steep precipice a few yards away. I should certainly have lost my life had it not been for the dog.

On another occasion, in order to get to the same place from another direction, I almost had to leave Cæsar to his fate. I had gone on letting the dog and myself down a precipice with a rope, and then climbing over a number of terraces. From a distance, these terraces looked easy of ascent, but when we came to them I found them steeper and more numerous than I at first thought. They were also covered with snow and ice. To climb over them I had in some places to cut steps in the ice, and when I got to the top I had to pull Cæsar up by a rope. After climbing over all I could see I was nearly exhausted, and to my great dismay I saw another terrace just before us, steeper and higher than any we had come over. To go back was to risk my life, to remain where we were was to be frozen to death, so I rallied all my failing energies in one great effort to cut my way to the top. When I got there I was so exhausted that I could not pull the dog up, and had a frightful attack of colic, which made me roll on the snow with agony. After a short time I made another attempt, and was just able to pull Cæsar up. From here I descended on the other side until I reached the bush, where I collected branches of silver pine and made a large fire all round me, thus drying my clothes, the warmth also relieving me a little of the colic. Arriving at the camp I was laid up for four days.

On the first fine day I made another expedition down the Sound in the canoe, which I filled with provisions, camping utensils, etc., leaving just room in the bow for Cæsar, while I sat at the stern on the top of the tent and blankets. After we had got away a distance Cæsar sat up and growled. I told him to lie down, but he would not, keeping on growling and looking at me, and then down into the canoe, so I scrambled up to where he was and found the canoe half full of water. I immediately commenced to bail the water out; then I paddled some distance and bailed out again, and when we got near the first place it was possible to land, I told Cæsar to jump out and swim on shore, to lighten the canoe. I got back safe to my camp, but all the provisions and ammunition were spoiled. Had it not been

for Cæsar I should most likely have been drowned. When I examined the canoe, I found a large crack in it, which must have been done when I was out the time before and was caught in a storm which threw the canoe on shore.

Once, when crossing above a waterfall in Dusky Sound, which was frozen over, Cæsar lost his footing and fell down. I endeavoured to get to his assistance, but, after climbing about until dark without success, following down the creek, sometimes up to my neck in water, I arrived late at the camp, tired and down-hearted at losing the only friend I had in these solitary wilds, far away from any habitation, the lighthouse steamer only calling once in three months, stopping a few minutes and then off again for another three months. I prepared tea, but could not eat any. I took the gun and fired towards the mountains, a signal for Cæsar that I was at the camp. I tried to sleep, but could not. But about two o'clock in the morning a knock came at the door, and to my delight Cæsar walked in. He could scarcely move, and was bad for several days.

In 1886 I made an expedition to Chalky Sound, and had to cut several tracks. One I cut from my camp to Landing Bay. It leads past a beautiful waterfall, which I called Grainger's Fall, after a friend who has been very kind to me. The other track is up the mountains. One day, while travelling along this track with Cæsar, as we were going up he left me on the scent of a bird. I told him that I should not follow, and if he wanted to go he must get the bird himself. He went and did not catch up to me until I was nearly two thousand feet above sea level. Then he came limping, and I found that he had broken two of his toenails. I scolded him for being so long away. He looked into my face, as much as to say, "You don't know what I wish to tell you, or you would not scold me." He had never been up this track, which divides in two, and I was surprised on returning to see him running before me, and then stopping short, pointing his nose to the ground. Upon looking I saw a fine kakapo, which he had got in the morning and had carried over two miles, but being a heavy bird and having lamed himself he was unable to carry it further, so he had placed it on the right track to await our return.

I had with me at Chalky Sound a retriever slut which I have mentioned before, and as I could not break her of the habit of killing birds I asked my companion to take her

away and shoot her. When he came back I let Cæsar loose. He ran at once to Nell's kennel and then he followed to where she was shot, and smelling the blood came back and looked very savagely at my mate, and I had to speak to him. All the rest of the day he seemed very crestfallen, as if he felt deeply the loss of his late companion.

CHAPTER IV.

THE USEFULNESS AND INTELLIGENCE OF THE DOG.

Dog Man's Friend and Defender—Arctic Regions Uninhabitable without him—The Famous St. Bernard Dog Barry—Evidence that Animals Reason and have a Language—Their Signs for Danger and Calls to Good Feeding Grounds—Introduction of Stoats, Weasels and Ferrets—Probability that they will Attack Lambs—The Feelings and Sensitiveness of Animals—The Value of Proper Training.

THE dog is the only animal that follows man on its own account. Everywhere he is his companion, and often defender and the provider for a whole family or tribe. Professor Brem, in his valuable *Natural History*, says: "In 1821, when a pest was raging among the Eskimo dogs, an Inthagirish family lost all their dogs with the exception of two pups a few days old. The mistress of the family had an infant, so she suckled these two pups with her child and had the pleasure of rearing them to save the tribe from starving." The same author states that in 1822 the inhabitants of the banks of the Kolyma River got the pest among their dogs, and owing to that a famine broke out and many people died of starvation, as they had no dogs to hunt or pull their sledges. The Eskimo could not exist without his dogs, which hunt, pull his canoe against the stream, and, in winter, drag the sledge for many miles over snow and ice fields. In some settlements in Africa the Arabs prize their greyhounds very much, and sometimes give a higher sum for a good greyhound than for a horse.

There have lived many useful and noble dogs, such as the well-known St. Bernard dog Barry, who saved forty lives which would otherwise have perished in the snow. He used to go out by day and by night, in all weathers, searching for unfortunate travellers, digging them out and bringing relief with the basket of food and barrel of drink which the good monks put on him. If the traveller was too much exhausted and Barry could not get him along he went to the monastery for the monks to help him in his merciful errand. This noble animal, with a larger heart than many a man, perished on one of his expeditions. There was the dog Drydus, which saved his master from the bandits, and another dog which sat by his dead master on the battle field, and followed him to the grave, where he dug a hole and was afterwards found dead. A friend of mine, Baron Gotter von Resti-Ferrari, an officer in the Austrian army, had a dog similar to a large Sky terrier, which accompanied him during the whole war in 1866. In the battle of Königkrätz the dog was missing, but three days afterwards, to the surprise and pleasure of his master, he returned, being slightly wounded. Mr. Wood speaks of a terrier which killed over 8,000 rats during his lifetime.

The usefulness and intelligence of animal life is seldom taken notice of, and that they reason is less believed, but I have given many instances in this little work which prove the reverse. For instance, I forgot on several occasions my sheath knife with the strap on. Cæsar tried to carry it, dragging the strap and treading on it. I saw him lay it down, fold the strap up, and then bring both at once. With birds, he always brought first the wounded ones and then the dead, and he would never let them go unless I told him to do so, as previously on several occasions some had escaped. Near the camp or in the hut he would never molest birds when I told him not to do so. While camping with Professors Parker and Thomas at the Karewa Island, the puffins, which were there in thousands, would sit on the dog's back, pull his ears, and bite his leg and tail. Cæsar would sometimes give a yell, but would not kill them, as I told him not to do so. On my last expedition in Chalky Sound, when I was catching a number of live birds to send to the Auckland Institute and New Zealand Preserve, I told Cæsar that he should only show me the birds' habitat, but not touch them. He did as required.

All animals have a language of their own, *i.e.*, among their own species—by sounds, expression of the eye, face, and the whole action of the body. I have often noticed that among wild animals. When the female has young with it and she has heard danger approaching, and the young one was not able to run fast enough, she gave a cry and immediately the young one hid itself, while the mother decoyed the enemy away by running round in a circle. Afterward, when the danger was passed, she gave quite a different call, and the young one came out of its hiding-place and answered her mother. It is most amusing to see young foxes playing outside their burrows—the pranks they play. Once when a mother returned with her prey she scented me and gave a cry. Immediately the young ones rushed into their hole. I watched for a long time and never heard a sound; the mother ran away. When chamois are feeding or playing they always have their sentinels keeping guard, where they can best scent and sight an enemy. As soon as they scented my approach they gave a shrill cry and the whole herd started in an opposite direction from whence they scented the approach of danger. Then, if an animal finds a good feeding ground, he soon tells his mates and brings them there, or if one gets wounded in a certain place he will warn his companions of that place and they use all precautions before they go there again. You will often notice that birds first come only a few on a field, the next day more, and so on. If you shoot some, when they come there again, while some feed the others keep a vigilant watch. When training their young they express their feelings and intentions by various sounds and movements, and from these sounds the young ones understand what they want. When procuring food, if one alone is not able others would come to their assistance; for instance, I have often seen a large stag break branches down for the others to feed on the leaves. Rats accomplish most extraordinary things. In the case of carnivorous animals the ingenuity and cunning is often marvellous. If they have no language or reason how could they accomplish what they do? For instance, one would lay in ambush while the others drove their victim near.

When I was a boy I saw some young stoats playing near their burrow. Going there to destroy them, I poked a stick into the hole. The young made a hissing noise and the old ones came to their assistance and called others, which also

came. They attacked me by running upon me together, and I had great difficulty in keeping them from my neck and face. They did not leave me until I had killed every one. I protested years ago very strongly against the importation of stoats, weasels and ferrets, and the turning out of cats in this lovely country to destroy rabbits. The result will be, that when all the rabbits, native and imported birds and poultry have disappeared, these vermin will attack the lambs, which are very helpless creatures ; and then who is to get rid of these vermin, which multiply very fast in this mild climate, with plenty of food and shelter. It will be impossible to get them out of cover. The rabbits only inhabit the open places, but these animals make their habitations anywhere. They find a shelter in the field, in stone walls and hedges, in hollow trees, in the forest, in houses, barns and stacks. My readers will pardon me for speaking once more on this subject, but I think it my duty to do so. If nature wanted such vermin in this country they would be here, but the greed of man looks often only to the present and takes no account of what the results will be or the harm he will do in the future. When the land is more settled the rabbits will have to disappear. I sincerely hope that my theory about these vermin destroying the lambs in time to come is wrong, but I have strong doubts.

The feelings and sensitiveness of animals are far more acute than men generally suppose. I have often observed domestic and wild animals taking up, nursing, and rearing the young of others differing from their own species, who had lost their parents when still helpless. Birds do the same, and watch over these young, teach them to procure their food, and provide for them until they are able to look after themselves. The feelings of some are far more easily hurt than others. For instance, a cross word to some hurts them more than the whip would do. They also distinguish between right and wrong. Some animals get so nervous when they have done mischief that they betray themselves by creeping about or hiding, especially when they have had a good training, which is a foundation that seldom gives way. Take, for instance, a young fruit tree ; if you prune, graft, and attend to it, it will bear fine and good fruit, but if you let it grow the fruit will be of very little use. So it is with ourselves and animals. The early training is the foundation of life.

CHAPTER V.

THE BREEDING AND TRAINING OF DOGS.

Animals Naturally Revengeful—Do Not Keep Curs—The Best Method of Housing Dogs—Bedding and Exercise—How to Feed Dogs—Medicine.

THERE is one thing which I have to say against animals—they are revengeful. They seldom forget an injury done to them, and the first chance they have they will retaliate, but in a more open manner than our species adopt, and not so cruelly. In their quarrels, as soon as one gives in, the stronger will let it alone, and they very rarely kill another of their own species, as mankind often do in the most inhuman manner to gain a few miserable coins, which no one can take with him into the grave. And men kill each other through disagreement, not reasoning that it takes two to make a quarrel, and that both are to blame in most cases. It seems to me that there is nothing more degrading than revenge. To injure a fellow creature because he has once done harm, is cowardly and inhuman. We destroy a tiger or other wild beast which lies in ambush to pounce upon the nervous deer when it comes to the water unsuspectingly to drink, but the tiger only kills to sustain his existence. He was brought up to it, and was taught by his parents thus to supply himself with food; and then he is only a savage animal; we destroy many things for our subsistence, and think ourselves superior to these creatures. We should not fall below them.

Most dogs are useful, but I do not believe in keeping and rearing miserable curs. A well-bred dog or cross breeds, such as Newfoundland and retriever, setter and retriever, bull dog and terrier, are far more easily trained than a cur, which has something from every breed in him. No one should keep a dog if he does not understand how to look after or train him—unless he buys a trained dog. Nothing is more injurious than to leave a young animal in the care of children before he is trained, especially with little boys,

who will tease the dog, make him bad-tempered, and set him on to other boys or dogs, thus making him savage.

Cleanliness and shelter, food and drink, are the first things to observe in the management of dogs. For keeping several dogs, or breeding them, it is best to have a place fenced in on a sheltered and airy spot, each dog to have his kennel a foot off the ground, with a side opening, a bridge outside the opening to lie on if he likes, and a yard to exercise in. The kennels and yards can be divided by fences, and if possible have an artificial stream of water running through the yard for the dogs to drink. No dog likes to be chained up, and it is very injurious, especially for pups, but people who have untrained dogs are compelled to chain them, so that they may not commit mischief. In the kennel in winter the best bedding is straw or a pillow filled with straw, which ought to be changed every month. The yard should be made of concrete, a little sloping on one side to let the water run off, with several inches of sand strewn over it, which makes it softer for the dog to walk on and also cleans his skin.

In summer, or in a hot climate, it is better not to put bedding into the kennel; then the dogs ought to be taken out as often as possible to exercise, especially when chained. In summer, wash them every week with carbolic soap, which keeps vermin away. Combing and brushing, if gently used, improve the skin.

Vegetable food is preferable to meat, especially for sporting dogs. Dog biscuits are very good when of the right sort and not musty. Scones made of sharps, oatmeal, and potatoes, soaked in broth or milk, with bread; vegetables boiled with beef, bread or biscuit in it—three parts vegetable food and one part meat—is sufficient. Liver is very good for them sometimes. Raw meat, especially if high, is bad; it injures their scent, heats them too much, makes them savage, and originates diseases.

In feeding dogs under a year old give them little but good and substantial food three times a day. Above a year old feed them once a day, giving as much as they can eat. A watch dog should be fed in the mornings so as to digest and sleep during the day, and his scent is then clear at night. A sporting dog it is best to feed at night; then his scent will be fresh in the morning. Often when they have a good meal they feel sluggish.

In the summer I always give my dogs one pill a week—the size of a small marble, made of butter, powdered sulphur, and a little magnesia, mixed until a hard paste. These pills have to be kept in a cool place. I have cured dogs which had distemper in a bad form with the same remedy, only giving them three pills a day until the fever left them.

CHAPTER VI.

THE MOST USEFUL DOGS.

The Shepherd's Dog—Some Good Specimens in New Zealand
 —The Cattle Dog—The Austrian Cattle Dog—Watch Dogs
 —How to Train Them—Teaching a Dog How to Save from Drowning—The Greyhound—A Substitute for Coursing—Sporting Dogs—The Best Species as Setters and Retrievers
 How to Train Them—The Bloodhound—The Bull Terrier—The Staghound—Importance of Studying Temperament and the Value of Kindness—The Charm of a Country Life.

TO see several collies mustering or driving sheep is one of the most interesting sights I know. The intelligence they show is marvellous. Some of the shepherds have excellent dogs. During my stay at a station, in 1877, near Lake Brunner, belonging to Mr. Bruce, the manager, Mr. Cameron, would go up on the top of a mountain with his dogs, telling one dog to bring some sheep a long distance away. If the sheep broke he ordered a second dog to assist. To see these dogs working together was wonderful. On the Snowden (belonging to Mr. Gerard, who employs a number of shepherds which were mustering during my stay), the hills, seen from a distance, looked as though they were moving—thousands of sheep coming along. One would think they must get smothered; but the dogs were walking between them to keep them from being crushed. At Mr. Ennis's station, on Castle Hill, and Mr. Neave's station, Rakaia Fork, I have seen wonderful working of dogs; their perseverance and patience cannot be too highly praised. Mr. Transon, at Paparoa, had a collie which would drive a flock of sheep anywhere without encouragement. His master had only to ride quietly after.

It would be impossible for station-holders to work without the assistance of these valuable dogs.

Another very useful animal is the Hungarian shepherd dog, or wolf-hound. He has not only to help his master herding, but very often to defend the flock from the attack of wolves. Two dogs were known to go out in the night by themselves killing wolves.

The cattle dog is another useful animal. Two of these dogs working together, bringing a wild or stubborn beast out of the bush, is a sight worth seeing. When the bull rushes at one the other follows, and when the animal stops one will heel it up, and when the beast tries to break away, no matter how furious the animal may be, they will bail it up until their master comes. Two of these excellent dogs I saw working when I was last at Paringa, one called Tom, the other Rowdy, belonging to Mr. Stephenson. They brought some of the wildest cattle out, which had been for several years in the bush.

In Austria the butchers have large dogs similar to the mastiff, sometimes larger. They are trained to drive cattle, sheep, etc. On several occasions I have seen a butcher buy a calf from a farmer, put a short rope on it and tell his dog to drive it home. The dog would pull the calf by the rope. When it stopped he got behind and barked, but never bit. Sometimes he pushed the calf along, and when the calf became tired he would lie down too, but would never hurt it. If a large beast ran away the dog stopped it. Some of these dogs would throw the strongest of bulls. They also protect their masters and their homes. They are very quiet and inoffensive animals, unless their temper is roused, when they are dangerous.

As watchdogs and as companions I would prefer the St. Bernard, Newfoundland, mastiff, or boarhound, but any dog will do for a watchdog as long as he is not a cur; but the first-named are useful in many ways owing to their sagacity, intelligence, and power. To train a dog for the above purpose, one must begin when he is a pup. Only the master or mistress should feed him or take him out. Never let anyone play with him or punish the dog. Always be gentle, kind, and firm, and train him as I taught my Cæsar, with the addition of training the dog on a man, but this I would not advise unless he is under control. To train a dog to go and hold a man, it must be a

good-tempered and obedient animal. You must then make a dummy man by putting two uprights in the ground with a bar across the top in the centre of which fasten a small block, put a long thin rope through the block, which you fasten at one end on the top of the dummy's head. After you have the dummy fixed, bring your dog out and set him on. If he jumps at the dummy's chest or back let the rope go. As soon as the dummy falls and lies quiet do not permit the dog to touch him. Then move the dummy's arms and legs by the use of strings fastened to them and through the bar; set the dog on and show him how to hold the man by the throat or neck gently. The main thing to teach the dog is that if the man keeps quiet and does not move the dog shall only watch him, but as soon as he moves he is to take him gently by the throat, but never permit the dog to tear or fasten on to another place.

To teach a dog to save anyone from drowning, make a dummy, putting cork in it. It must be light, so that the dog can push and drag it easily on shore, and it also must float well. Before you teach this lesson the dog must understand how to retrieve on land and out of the water. Send your dummy by some one to the water, have it thrown in but have a strong string fastened to the dummy, which your man holds. Take the dog there and tell him to fetch it out. As soon as the dog goes in help him by pulling your line, and when he comes with it near the shore show him how to fasten on to the dummy close to the chest, and to pull it out of the water. One lesson a day is enough, but repeat this lesson until the dog understands you thoroughly. The Newfoundland is the best for the water, next the retriever. Many lives have been saved by these dogs, and I have often wondered why they have not long ago been trained and used by the coastguards or by people who live near water. For this lesson the dog must be more than a year old.

The greyhound is used for the chase and coursing. The latter is a rather tame game, and it is not a very noble sport to set dogs running after a nervous hare. Would it not be better to try the dogs' fleetness to have them trained for racing? For instance, let a man lead the dogs to a place opposite to where their masters stand. Then after they have whistled, let him unslip the dogs, and let the prize be given to whichever of them (after they have been trained),

comes in first to his master. These courses could be open or fenced in. I think it would be less expensive and not cruel. The prettiest greyhound I ever saw was an Abyssinian greyhound belonging to the Austro-Hungarian Consul in Suez.

Spaniels, setters, pointers, and retrievers can be used and trained for setting, rising, and retrieving game, but it is always better, when one can afford it, to use the pointer and setter for setting, and the spaniel and retriever for rising in swamps and retrieving. To train the dogs I have mentioned begin as I began in Cæsar's training. The greatest care has to be taken the first time the dog is taken into the field that he is not made shot or water shy, and that he does not break cover unless he is told to advance or to drop, then not to chase the birds, and that he comes directly at sign or call. It is always advisable to take a young dog on the training line, to prevent him from breaking cover, or running away after the shot; and never fire the first shot when with a young dog, unless you are safe to kill, so that the dog will get confidence in you.

The bloodhound is a pretty dog. In former times he was used for tracking criminals, and in Austria he is used on the trail of a wounded stag. This dog wants a particularly careful training to get him under control, because he is liable to get enraged, or fierce and dangerous, on account of his strength, activity, and keen scent.

The dachshund, or badger dog, is a peculiar creature. It has a long head, with a fine and strong set of teeth, long hanging ears, broad chest, a long body, short thick legs from the knee, bent outward. They are the best dogs to drive the badger out, also the fox; but the badger is a very surly and stubborn animal in his burrow. He has at the end of it a shelf. When molested he sits on that, and has an advantage over the dog, as he is higher, and the dog has to reach up to bite at him. I had one of these dogs in Austria, which would kill any badger and pull him out of his hole. These dogs are very good for beating through the bush, yelping slowly after the game, which announces to the sportsman that game is near and to prepare for the shot. They are very good watch dogs, and have a sharp scent. The only one of this species I have seen in New Zealand is a beautiful dog, still in quarantine, belonging to Mr. Owen.

The large bull terriers are the best dogs for pig hunting and good watch dogs. They are strong and plucky.

The stag-hound is another fine dog, very much prized in Scotland for hunting.

I have now remarked on most of the useful dogs. Fancy breeds I have never gone in for.

By training a dog with kindness you will bring the animal to a higher degree of usefulness and intelligence. Never punish a dog in the field. You may scold him and put him on the line or strap, but do not strike or adopt the inhuman way of kicking the animal, otherwise he will get stubborn and shy. An animal trained with kindness works well and is delighted to please his master. A dog who is broken in with cruelty works from fear, and is always in a state of nervous excitement, which makes him do wrong. If the temperaments and habits of animals were studied before they are trained, the trouble would be repaid many times over. If an animal is nervous, he should be treated with gentleness; if stubborn or savage, with kindness, but firmness. Should such treatment be given, then we should very seldom see a vicious horse or a savage dog. There is plenty of evidence that animals appreciate the kindness of their master. Their noble self-sacrifice and constant desire to please those they love is well known. I should not be alive now were it not for my friend Cæsar, and the many noble actions he has done will keep his name ever green in my memory. Often in the wilds, far away from civilization, with only Cæsar for a companion, suffering from exposure or accident, and feeling melancholy, he would look into my face, wagging his tail and trying his best to please, and seeming as if he wished to say, "Cheer up, my friend, it is not always winter, and summer is coming." Now he is very deaf and blind of one eye, yet he always looks in my face and watches the movements of my mouth, to see what I say and want. I always spoke to him, and he understood every word I said. When I said good-bye to this faithful friend and companion for so many years, he was quite overcome with grief, and I could not stand his sad looks. I felt I was studying his comfort in his old age by leaving him with very kind friends and in his favourite haunts, and I often wish I could be with him.

There is nothing more charming than to wander among the beauties of nature, where human foot has never trodden before and the hand of man has not yet disfigured its pristine

grandeur and purity. Sometimes the forces of nature are very harsh, but when overcome they seldom deceive. Nature's welcome is equally bestowed on everyone, without distinction. In large cities even the air one breathes is foul, without mentioning other grievances. I often wonder why people crowd so together in towns, and very often make themselves and others miserable, and if they make more money there are more temptations, and people spend more. Then the poorer classes are exposed to the fluctuations of employment, which render their means of livelihood precarious. Shifting about is expensive, and their lives are full of anxiety. In the country, if a family begins in ever so small a way, they have a home secured. Nearly all the practical and contented people who have taken up land and take a pleasure in work get on well and are happy. Of course, farming is not always a money making business, but there is not so much anxiety and sorrow in the long run. Wealth is not in all cases productive of happiness, but occupation of time keeps discontent and troubles away. I know many farmers in our highlands who make very little or nothing, but they are happy, live well, and work hard, and are not subject to social restraints.

CHAPTER VII.

THE HORSE.

Most Horses Ruined in The Breaking In—Training Should Begin Early—Preparation of the Colt—Breaking In to the Bridle—Check Bad Habits—How to Punish Horses—Accustoming Horses to Harness—The Proper Kinds of Harness—Horses Used for Sporting Purposes—Accustoming Them to Shooting—Training Horses to Swim Rivers—My Old Horse Prince—How the Arab Trains his Steed.

THERE is one more subject I should like to speak a few words about. I have often watched the breaking in of horses. The words, "breaking in" could not have been better applied. Yes, most of the horses are broken effectually, instead of being taught by kindness and firmness. The horse is another faithful companion of man, and is mentioned by the earliest writers. No explorer or

traveller could do very well without one, but it must be well trained. The best way is to start with a foal, by giving it now and then a piece of bread, of which it soon gets very fond. When you give the bread, whistle, and it will soon learn to gallop to you at the sound. When you whistle never tease or play, but gently catch it and lead it about, and when it is well used to the halter, strap a bag on the back. Talk kindly and gain its confidence. When two and a half years old, put a bridle on. Use a straight bit, wound round with flannel to prevent the animal's mouth from being cut, and lead it about. When well accustomed to this put a saddle on, afterwards let a boy mount who is used to horses and kind to animals. Give him the reins and let him guide the horse, while you hold it on a line. Always make the horse stand perfectly still while the boy mounts. Repeat this lesson twice a day for a week or fourteen days, then mount the horse yourself and ride for a short distance every day. Teach it walking, trotting, and jumping, if possible, without a whip or spur, as they soon get used to the latter, which spoils the pleasure of riding. Ride near some object of which horses are generally frightened. If she shies, speak kindly to her. Do not pull or whip her, because by doing so, if it is a nervous animal, you make it worse ; but take her back to the object she shied at and let her see it, and repeat this until she will not shy any more. A horse may be taught, but never should be used before three years old. If you are kind to her, she will soon learn and understand the words, and follow you, trot, or jump, or do anything you tell her. Never allow her to contract any bad habits. When you have to punish her, speak first, and then let her feel the whip only once, when riding, driving, or in the stable, but never strike her when leading her or when the horse is free, or you will make her shy.

Those who can afford it should never use a riding horse for a pack or draught horse, as it spoils them for riding, but, in case of need, one horse can perform all these duties. A pack horse is broken in in a similar manner to a saddle horse, only after it is used to carrying pack tins, which rattle, or meat, which horses do not like to carry, get her gradually used to everything. A carriage horse should first be led about in the harness until she is used to it, and then be put in a light trap or brake, one person taking the reins and another

who understands horses should lead her gently on a good level road. Never use the whip if it can be avoided, and only keep her in for half an hour. The second week drive her up and down hill to get her used to pulling, and in breaking never allow her to run fast down hill, especially if steep, as the fore legs suffer, and get soon worn out. Never allow her to jib; if she tries, put the brake on and get her on gently past anything she has shown an objection to. Repeat the act till she is accustomed to it. Don't use the horse much till her shoulders get hardened; they are always tender at first. In level country breast harness for a light carriage is the best. On every trap, waggon, or cart there should be a brake for safety. It is cruel to the horse going downhill with a heavy load to see it pushed along by the cart in a most unmerciful manner. Horses should always be trained by someone fond of them, who understands their habits, and does it not alone for money's sake, but more out of pleasure.

After it is trained for riding, go somewhere where there are no people about, and take a revolver and some blank cartridges with you. Speak kindly to the horse, holding it with one hand, and fire a charge with the other. If she gets restive, quiet her, and then fire another, and continue this process till she stands still for you to fire from her. Then take her where there is plenty of grass, and attach a strap from the bit to the fore leg, so that she is compelled to hold her head down as if to graze. Then take a gun, point the barrel over the horse's neck, and fire a small charge. Speak kindly to her. Repeat this several times till she stands still and lets you shoot as often as you like. In some countries the horse is used as a screen to get near shy animals or birds, as they will permit a horse to approach nearer than a man. The horse walks sideways towards the game, and the man hides behind her so that the game does not see him.

To train a horse for crossing rivers, ride her with an old river-horse first through a shallow stream, but if she does not like the water, get off and lead her through it several times. Then get on her back and ride her through it, taking her every time through a deeper place till she has to swim, the first time a short distance, but afterwards further. Guide her gently when she is swimming, as a horse is very easily pulled over in the water, which is dangerous to rider

and horse. Then care has to be taken that the current is not too swift ; also that the landing on the other side is not too steep. A muddy river or a river with quicksand should be avoided. With an old river-horse it is best for inexperienced riders to let her go her own way ; she is sure to bring him safely out.

I have trained several horses—the last a well-built and fine chestnut called Prince, which I was sorry to part with. He would follow me like a dog, come to my whistle, and stand, trot, or gallop just as I wanted him. He is a saddle, pack, and carriage horse, and does each duty thoroughly without either whip or spur. He is very spirited, but if anyone ill-treats him or shouts at him he knows how to defend himself, and does not allow himself to be caught by a stranger. When I last saw him he was in a high stall and had not seen me for a year. Directly he heard my voice he turned round, and when I went near him was very pleased to see me again. When I took him back to the stable I let a young friend of mine ride him, but the horse took no notice of the reins, and followed me wherever I went. When I tied him up he went back in his stall as far as he could, as he did not like parting with his trainer and master, who was fond of him, and for whom he also entertained a strong affection. He does not like strange dogs, and never lets them go near him, as he was bitten twice ; but as soon as he saw his old friend Cæsar he smelt him all over, let him go between his legs, and seemed glad to see his old companion.

I will give a few instances to show how the Arabs train their horses. From the day the horse is foaled it is treated with the greatest affection and kindness. When the foal is eighteen months old a boy will take it in charge, feeding, cleaning, leading it about, and watching every movement. He looks at the horse as his idol, but he never allows it to learn any bad habits. When the horse is two years old, he takes a bridle, wraps the bit around with wool, so that it will not injure the horse's mouth till it is used to it, then puts a light saddle on, and is very careful in handling the horse. When it is three years old he uses it, but the Arab does not consider his horse fully trained till it is six years old, and all the while he never uses a whip. He does everything with talking and kindness. By that time the boy and horse get united, showing the greatest affection for each

other. It would be useful for some of our white brethren to take a lesson from these children of the desert, who are at the present time a prey to fanaticism.

CHAPTER VIII.

CAMPING IN NEW ZEALAND.

Absence of Venomous Reptiles—The Poisonous Spider—Precautions against Disaster—Nature's Indications—Selecting the Site for a Camp—Construction of Huts or Tents—Best Kind of Tent to Use—Arrangement of Bedding—Clearing the Site for a Camp—Cultivations—Storehouse for Provisions—Destructiveness and Ingenuity of Rats—How to Get the Bearings of a District—Making Tracks in the Bush or Snow—Equipment for a Tourist or Explorer—Requisites for Alpine Expeditions—Provisions for Extended Expeditions—A Model Boat—How to Construct a Raft—Directions for Securing Safety in a Snowstorm—How to Act if Lost in the Forest—Food Procurable in the Bush—A Protest against the Reckless Destruction of Birds.

IN New Zealand there are no carnivorous animals or venomous reptiles. Only three small spiders are venomous. The natives call them katipo, and are very much afraid of them. In 1882, when searching the east coast north of Auckland, near Patau, on the sand-hills under creepers I saw a black spider with a round body and three impressions on the back. It is common in some places. The natives who accompanied me, as soon as they saw this little spider, called out "Katipo, kakino, pakaro," and ran away, refusing to come near me. I collected some of the spiders and put them in spirits of wine mixed with a little water. This was in the morning, and at 4 p.m. I returned to Mr. Kay's station and began to sort them, when, to my surprise, one of them walked away. Another small black spider with an oblong body and bright red stripe on the back, is found on the West Coast near Wanganui, on the sand-hills, generally under logs or drift-wood. The bite of these spiders has in some cases proved

fatai, chiefly among the Maoris, who are very superstitious. The third is a small dark-brown spider with heart-shaped body and three yellow spots on the back, which is found in the South Island near the sea. Taylor Mistake, near Christchurch, is a favourite place with them. These spiders are the only creatures of which travellers need beware. It rarely happens, however, that anyone is bitten, and I never found them in the heart of the forest.

There are many things to be observed in camping to preserve health, and in order not to be surprised by natural forces, or atmospheric changes which are so sudden in New Zealand, and more especially in the extensive wilds on the west coast of the South Island, where many people have lost their lives through exposure, losing themselves in the bush, or have been swept away by a torrent or an avalanche when they least expected it, as happened in the recent lamentable occurrence by which Professor Brown lost his life.

During many years of camping life, often far away from any civilisation, through struggling against the forces of nature, I gained experience. It is always better to choose a sheltered spot for a camping place near running water or on an elevation. The growth of the vegetation will show from which direction the most severe storms may be anticipated, as the trees invariably lean in an opposite direction. The prevailing storms in the South Island are from the west and north-west. If the wind is north the weather is generally muggy, with slight rains. North-west and west winds are generally accompanied by heavy rainfall. South-west to east, sunshine with showers and snow; south-east, east, and north-east, fine. The wind in these places is often a better weather guide than the glass.

The first thing to do is to go up the river, stream, or torrent near to which you intend to camp, and examine the banks; take notice of the vegetation and trees to see that there are no water marks, such as mud on the bank, and branches or leaves stripped off, the vegetation bent, patches of sand or branches and driftwood about, all of which are signs of floods. When a warm wind and rain set in these rivers rise often to a considerable height. A creek which is almost dry will in a short time rise five feet, and rivers twelve, carrying stones and trees before them. Some of the latter I saw jammed between branches ten feet above the

ground. Do not place your camp too near the foot of a cliff or mountain, as in the spring time, when it thaws, the heavy rain and wind may cause landslips. If you intend to remain long in one place, select a spot where there is good soil for a vegetable garden. If you are satisfied with the place you have chosen for camping, clear the bush so that the tent or huts are at a safe distance from any tree which may be uprooted or broken by a storm. In the North Island very good huts can be built by making a framework of wood, then lining and covering it with the leaves of the nikau palm. To build a rough hut, especially when camping during the winter on the West Coast Sounds or Southern Alps in the South Island, cut totara, black pine, or any other hard straight wood, about eight inches in diameter and eight feet long; put the posts two feet into the ground, about six feet apart. The number of posts must be according to the size of the hut required. I generally used from nine to eleven; the odd post is used at the door. Having fixed the posts, cut long scantlings, and nail or bind them on parallel to the middle of the posts. Then fasten a similar number on the top of the posts to which the roof is attached. In the next place, in order to make the walls split fern trees, and nail or bind them on upright to the scantling, as close as possible together. For the roof, get uprights, four on each side, fasten them two and two on top together, and the lower end to the rafters; put a ridgepole on top, then put four or more scantlings on each side, nail them to the upright, and finish the roof by covering it with tussock grass, gigi, totara bark, slabs, or shingles. The chimney is also built of wood, with a roof, and the fireplace with stones, clay, or mud. The crevices of the walls are to be filled up with moss dipped in clay or mud. The floor can be made of fern trees or slabs. The exposed side the roof ought to be built in triangular shape, which prevents the wind from unroofing it, and if the roof is covered with grass, heavy scantlings have to be put on top and fastened to the inner scantlings to keep it firm. In the absence of nails, I used flax or creepers to fasten the grass to the roof. A ditch should be dug at least a foot deep round the hut to keep the ground dry.

To put up a tent, stick four uprights in the ground apart, according to the size of the tent; fasten them on top together so that they form a fork, on which a ridgepole is fastened

after it is put through the tent. Then cut sticks, drive them into the ground, and fasten the tent strings to them, so that the tent will be straightened; the walls are pegged to the ground. Another pole which is fastened on the top of the ridgepole, and is used for the fly, has to be eight or ten feet longer than the tent, sticking out in front to straighten the fire fly over it, and prevent the fire from going out in bad weather, and to dry the clothes; it also forms a verandah. Another useful addition to the camp is a storehouse for keeping provisions and utensils dry and safe from rats. It is built similar to a hut, in any size wanted. If small, cut a tree six feet above the ground; on the top of this build the store. If required large, cut posts nine feet long, put them three feet firmly into the ground, and with the aid of a ladder build on top of them the storehouse. Round each post zinc must be nailed to prevent rats from climbing up. If there is no zinc, the tree or posts should be cut all round in an oblique manner, thick on the upper end to which the store is nailed, and thin at the lower. They ought to be made very smooth, and greased, so that the rats fall down when climbing up. The bush has to be cleared all round the storehouse to prevent rats from jumping from the branches on to the roof, and to keep the place airy. The stores are easily taken in and out by a ladder which must be taken away when not wanted.

For a short stay, I advise tents with good flies; for sleeping on, a bunk is the most comfortable. A bunk of this description is made out of four uprights, the height according as your tent or hut permits. On top of the uprights nail four bars, which forms a frame seven feet long and three feet wide. On this frame nail sacks or make a network with flax, which forms a very comfortable mattress. On top of this put dry moss in a bag, and then the blankets. A bed made in this manner off the ground preserves you from colds and from getting rheumatism. Another way to make a bunk for sleeping on is to put the trunks of small trees or slabs from one to two feet above the ground. Put dry branches, ferns, or grass, on top of these, then a waterproof sheet, which keeps the damp off, and finally blankets. With tents in a wet climate I found it best to build a floor one or more feet off the ground, with wood; also wooden walls from three to four feet high. The size of this framework has to be one inch smaller all round than the tent which is fixed on

top of it, in the same manner as described before. The tent walls have to lap over outside on the wooden frame, then dig a ditch round to drain the water off, and fix up a break-wind out of branches, etc., to prevent the wind injuring the tent. It gives you more room, and it is also healthier to build a tent in this manner. In the morning, after you have aired the blankets or any woollen apparel, put them in a bag or wrap them up in a waterproof sheet to keep the blowflies off, as they deposit their larvæ on them at once, and make it very disagreeable. On the West Coast they were so bad that they blew the inside of the barrel of my gun.

The bush ought to be well cleared around the camp to keep it dry, but no trees should be removed either on cliffs or near or on the banks of torrents and rapid rivers, because as soon as the stumps and roots rot, which hold the soil and rock on the surface together, landslips very often occur, or the soil is washed away by heavy rains, and on the exposed places the wind sweeps the rest off, leaving the barren rocks which would have been otherwise a flourishing wood, useful to cut now and then for firewood or other purposes. Felling the bush on the banks of rapid rivers or torrents is still worse. As in a flood, when there is no obstacle, the water forces its way, forming new channels, carrying whole pieces of land away, washing out deep holes, covering a large extent with sand, and making a wide devastation, which is often caused through the ignorance of people.

When clearing bush, the undergrowth and smaller trees ought to be first removed. In felling large trees, first make a cut with a crosscut saw on the side you want the tree to fall. The depth of the cut must be made according to the size of the tree. Take the saw out and chop with an axe a triangle, which gives the tree room to sway. Take the saw again and cut the tree on the opposite side four inches above the first cut, which prevents the tree from falling backward. As soon as the tree begins to sway take the saw out at once and be on guard. If it is still fast, one or two chops with an axe will bring it down. Of course, if a tree is leaning on one side, it has to be felled accordingly; but if it is blowing, fall the trees with the wind. If time is no object, cut off the trunks that are straight and easy to split and make palings for the sides and floor of the hut, or shingles for covering the roof. Then pick out any

timber that is useful for rails and posts. If the posts be burned at the end where they go into the ground, so that there is a burned crust all round, they last much longer. The rest can be used for firewood. Rata, tawa, tariti, silver pine, and mountain birch burn very well green. Make a bonfire of the branches, and you will soon have a place cleared for a camp and garden. By felling the bush and digging the trees out by the roots, a better result for cultivation is obtained, but it requires more labour and time. I believe in getting the camp in perfect order first, to have a stock of back-logs and of firewood ready, all the spare places in the hut or tent filled up with small dry wood for kindling the fire. It is not pleasant when returning from an expedition, wet through and tired, to seek for firewood.

If there is no storehouse, all provisions should be kept in strong barrels or zinc-lined cases to keep the rats off, for they are a great plague in New Zealand, and so ingenious that they often got the better of me. Once I straightened a thin wire between two trees, on which I fastened in the centre skeletons, hanging on thin metal wire. On returning from an expedition I found a number of skeletons destroyed. The first moonlight night I watched the rats climb up the tree, then begin to walk on the wire; several fell down, but one used his tail like an opossum. As soon as he came to the thin wire on which the skeletons hung he twisted his tail round and slid down on to the skeletons. The potatoes which I always put in the ground in an apartment lined with wood, or in a hole in sand, the rats would carry away if not properly secured. When I was arranging the Wanganui Museum, in the room in which I worked upon some shelves were a number of bottles of beer. The rats gnawed away the corks of some of these until they could lick the contents, and two of them visited the bottles every day afterwards for a drink while I was there.

In order to get a thorough knowledge of a locality, take a compass, select a prominent object, such as a remarkable tree, rock, or mountain, and with the instrument take the direction from your camp to the object you have chosen, which you put down in your notebook, and then follow along. If you are not accustomed to the bush, break branches as you proceed. As soon as you arrive at the highest point, from which there is a good view of the surrounding country, make a geographical sketch. Take

out your notebook and number in it all the main ranges, cliffs, glaciers, rivers, streams, and lakes, and take the direction with the compass and the altitude with the aneroid barometer, and streams with an arrow pointing in the direction in which they flow. All these notes and observations will be a guide to you should you happen to lose your way. Cut through the centre of the district you want to explore a track direct from your headquarters. This will save you much time in carrying provisions along, and when searching the country on both sides, scrambling the whole day through the bush, it is pleasant to come out upon a track which leads to the camp. Over grass country or snow fields the best thing to do is to make a flag track by cutting sticks and tying on one end a small piece of calico; the pointed end stick firmly in the ground. These tracks are useful if the footmarks get covered with snow, or in a thick fog, which covers these mountains so frequently. I would not advise anyone to visit the Sounds or Southern Alps for pleasure from the month of June to November. During these months heavy storms, accompanied by snow and hail, and nearer the shore heavy rains prevail. The air is damp and cold, the bush as wet as a lake. From November until February the weather begins to get pleasant, the snow disappears from the Alps, and the flora begin to bloom, making a natural flower-garden of great beauty. During this time heavy floods occur, caused by the warm wind and rain melting the snow. From the end of February until May it gets colder; the remaining snow will not melt. The rivers and torrents are then shallow. Of course, there are occasional floods, but not so frequently as during the first summer months.

I will now describe the equipment a tourist would need in exploring such a region as this. I found the best clothing for Alpine travelling was knickerbockers, loose at the knee, made out of chamois skin, stag, or strong woollen stuff; long woollen stockings, a short woollen coat, a light soft hat or cap, watertight boots nailed with spiked nails, and a good supply of strong plain woollen clothing and flannel underclothing, boots, blankets, and waterproof sheeting. This last-named article will be found very useful for laying on the ground to keep yourself dry, and also for packing up. A cork or gutta-percha mattress is also useful, if not too much to carry.

An Alpine bag made out of strong light waterproof stuff is desirable. This bag should be two feet four inches long by fifteen inches wide, with a hem on top through which a strong band is passed to draw the bag tight. Two shoulder straps should be fixed to the bag with buckles to enable it to be fastened to the proper height. This bag is useful to keep provisions and utensils in, and is very convenient to carry on the shoulders, as it does not hinder the tourist when ascending. A strong girdle made of leather or stout webbing, with a strong ring which must be properly secured, will be found very useful. This girdle must be tested before being used as the tourist's life is sometimes dependent on it. This girdle is necessary when ascending mountains, crossing ledges and snow-drifts, or ascending glaciers, a rope being securely fastened to the ring in the guide's girdle, then about sixteen or twenty feet farther off, according to the nature of the place. The rope is passed through and tied to the ring of the second man, and so on to the end of the party. This method is used to prevent precipitating; if one man slips, the others, by using their alpenstocks, hold him up. A strong five-eighth or seven-eighth inch Manilla rope, or a silk line five-eighths of an inch thick, from 70 to 80 feet long, is the most suitable for the purpose. The best alpenstocks are made of walnut, from 6 to $6\frac{1}{2}$ feet long, and $1\frac{3}{8}$ to $1\frac{1}{2}$ inches in diameter. In the lower end a steel spike, with a hook similar to a boat-hook, is fastened on. This alpenstock is used in ascending, crossing glaciers, and descending, and sometimes they have to be used as a stretcher when accidents occur. A stretcher of this description is made by fastening two alpenstocks about two feet apart by means of rope, shawls, or blankets. The injured or exhausted man is laid on this contrivance, which is carried by two men in turn.

The ice axe has one end shaped like an ordinary axe and the other like a pick, its head is from eight to eleven inches long, and in shape similar to the axe used by fire brigades. The handle is from sixteen inches to two feet long. This instrument must be of the best tempered steel, and should be carried in a leather case strapped to the girdle. In traversing glaciers it is used to cut steps in the ice, or for any other purpose.

Foot irons must be made to fit the sole of a tourist's boot. The shape of the iron is like the sole of a boot, with two

movable joints and eight very sharp spikes one inch long, which must be made of the best steel. These irons are fastened to the boots by means of straps, in a similar manner to the way skates are fastened on. Irons of this description are used for traversing glaciers and ledges, and for snow-shoes. They are not much needed in New Zealand, as during the summer months the snow is hard and easy to traverse. In winter snow-shoes are very useful, as the snow is mostly soft and dry. They ought to be of light material—a framework of wood pointed at both ends, about two and a half feet long by one foot wide in the centre, with a wooden socket with straps on to fasten them to the boot. The rest is a network of strong string, raw hide, or wood.

A compass and aneroid barometer, lamp, candle, matches, and soap are requisites, and a mosquito-net will be useful, as the sandflies are a great plague during the day and the mosquitoes at night.

With regard to provisions, oatmeal should not be forgotten. It is light to carry, very nutritious, and also makes a cooling drink when mixed with water, and is easily prepared. I often had nothing but biscuits and oatmeal mixed with snow or water for several days, and always kept healthy and strong. Of course, there are now many extracts and preparations of food for such purposes, but I could not indulge in such luxuries. In the numerous expeditions I have made my provisions consisted of oatmeal, flour, biscuits, potatoes, butter, jam, tea, sugar, salt, and pepper, also a supply of medicines in case of accident. I am always healthy, living mostly on vegetable food. Having to starve on several occasions in the uninhabited wilds, later on I took double the quantity of provisions to prevent similar occurrences.

For a prolonged expedition it is desirable to take a crosscut and hand saw, axes, tomahawk, billhook, pick, shovel, crowbar, chisel, spoons, forks, billy, pannikins, knives, plates, gridiron, and other cooking utensils, claw-hammer, spokeshave, gimlets, bradawl, reserve handles, hinges, screws, copper nails and rivets, iron nails of various sizes, plenty of string and tarred cord, needles and thread, and worsted. A cork life-belt is very useful when crossing rapid rivers; fishing tackle also, as the New Zealand coasts abound in many species of delicious fish, which are easily caught with the hook and line.

A boat would be very useful for fishing or shifting from one place to another ; but great care would have to be taken, as the weather is sometimes very treacherous in the waters between huge mountains, and a small boat would not have much chance in a westerly gale. The boat which suited me best for exploring was one built by Mr. Carr, of Auckland, modelled according to my own idea. It was about twelve feet by four feet, clinker built, whaleboat shaped, the keel like a Swedish dingy, very small ribs but double the number, the planks thin but of the best material. In the stern and bows it had an air-tight chamber, and it was so light that I could carry the boat on my back, and it carried ten men in smooth water. It was one of the easiest boats for pulling, and behaved well in rough weather when properly ballasted. It also looked a pretty model. A friend and I had a small sailing boat from the same builder, in which we cruised about visiting the outlying islands of the coast, and sometimes got caught in rough weather, in which it behaved splendidly. With a boat is wanted a double set of oars and rowlocks in case of loss. What ought to be observed when camping, if the explorer has a boat, is that a shed should be quickly built, as this saves the little craft from wet and heat, which very often split the planks. When exploring, the first thing to do on landing is to put the boat in a secure place, pull it on shore, turn it upside down, and cover it with calico or branches to keep the sun off. Before the boat is dragged ashore or anchored, notice should be taken if there are any large or old trees near, which might tumble and break the boat. These should be cut down first. The safest anchorage is a sandy or muddy bottom, but the tide has to be considered. It must not be left in a creek, as in a very short time the water often rises to a considerable height, and sweeps everything before it. If the bottom is stony a rope should be fastened to the wing of the anchor, so as to haul it up easily. If it happens to get foul on a rock, do not forget the life belt, provisions, fresh water, fish lines, and axe. The loss of a boat in some uninhabited place would be in most cases a serious peril to the party. If the boat gets destroyed, make a raft out of mako, a very light wood with reddish broad-pointed leaves ; the wood is white and the bark dark brown ; it is common along the coast, or cut flax sticks or raupo reeds. All these make good rafts. Take first the long pieces of wood, and

put them in the centre, tie them together with string, flax, creepers, or roots. Each piece of wood should be a little shorter than the piece next it, so as to form the raft pointed at both ends, which makes it go quicker. On top of this bind pieces of wood across, so that they do not stick out on the side of the raft; three layers are enough. The principal thing to observe is that the timber is well-fastened together so that it cannot get adrift. Bind or fasten three upright pieces of wood on top of the raft, to which fix the oars, two or four for pulling, and one for steering. With a raft like this you can safely cross a bay, arm, or river, if the water is not too rough.

In landing on a dangerous place where there is a heavy surf or swell, the following precautions should be rigidly observed:—I have found the best time to be about daybreak, or in the evening, as the sea is calmer. If it blows during the night the wind generally slackens by daybreak, and freshens up again about 9 a.m., and if it blows during the day it slackens in the evening. Great care has to be taken if there is any surf on to keep the bow of the boat straight to the landing and the stern to the sea. When close to the shore keep the boat in the above position, and as soon as the third sea comes rolling in make a few hard strokes, and if there are more than one in the boat two men should jump out, one on each side, and hold the boat so that the receding current cannot wash it out to sea again. Then all get out and unload the boat, and pull her on shore, so as to prevent the sea from getting in. It is not safe when near the shore to have the beam towards the land, as when in the breakers a boat in that position is easily swamped. It is not safe to try to land when there is a heavy sea breaking on shore, especially on a boulder or rocky beach. It is better to keep out at sea until the sea becomes calmer, or to seek a more sheltered spot for landing.

The camp should not be put up too near a stream or an exposed place, also not under old or rotten trees. If you have not any zinc boxes or canisters, hang your provisions to the ridge-pole with wire, put a piece of square tin on the top above the bag so that when the rats get on they slide down. Secure all your leather utensils, especially when greased, as the rats may gnaw or destroy them.

If you should get caught in a snowstorm, the best thing to do is to camp and wait until it is over. If you have no

tent, which is not much use on the snow, as it often gets so frozen that it breaks, and has to be left on the spot, make a snow hut in a sheltered place or dig a hole in the snow, opening on the lee side. If you feel cold move about, but never go on during a severe snowstorm in a place where there is no habitation or track, for you soon get exhausted through wading in the soft snow, and a sleepiness comes over you which you cannot resist. If you have not a very strong mind you will give in and lie down to rest, and never wake again in this world. The best course is to let the storm pass over, then put your snow-shoes on and return to your camp, or, if safe, go on exploring. If you have no snow-shoes, cut four pieces of wood, tie two and two together at the ends, cut several short pieces and fasten them across the long pieces with string, flax, or creepers, and then tie them to your boots, which will do as a makeshift, and will get you out of your difficulty. Never go over avalanches or glaciers without a stick, ice-axe, snow-shoes, foot irons, rope, warm light, blankets, and waterproof sheets. In treacherous places feel your road with the stick to ascertain whether the crust is thick enough to carry you.

Never go without a compass, but if you have none the sun is a good guide. Remember in which direction your camp lies by the sunrise or sunset, also take notice of the main ranges, rivers, and streams, a remarkable tree or rock which you may have noted in your note-book from the top of the mountain, and how far you are from your camp.

For subsistence, if you have no provision, always carry matches in a well-corked bottle. This way of carrying prevents them from getting damp. The Maori hen (*Weka*), through her inquisitiveness, is easily caught. Take a stick, tie a red rag or bird's wing on one end, then move it about. Have at the same time another stick ready, on the end of which you have a flax snare. Whilst the hen is rushing at the rag you must snare her. After the hen is plucked and cleaned, put a stick through her body and place it near the fire to roast. With the wings you can catch others. Gather worms, and if you have not a fish-hook tie them on a string, and put this bait in the evening or at night in a pool of a stream, and you will catch eels. If you wade in the streams, by removing the stones you may find crayfish and small fish. With a net made of flax or creepers, on a wooden hoop, if you put a stone and bait in, you may catch crayfish nearly every-

where round the coast where there are rocks, also fish with a hook and line from the shore. When the tide is out, among and under the rocks there are numerous shellfish and mussels, which are not bad when cooked.

If you have not any matches, rub two sticks together—one hard and the other soft wood, and have dry bark of the rata tree or the spongy wood from the mountain birch ready. As soon as the wood begins to light through the friction, put the bark on it, and you speedily have a fire.

If you have not any cooking utensils dig a hole in the ground, line it with stones, then make your fire in the hole, put stones on top of the wood. When the stones are well heated clean the cinders out, sprinkle water on it, and then put branches on. On top of this put your food, then again branches, and cover it up with earth. In less than half an hour the food will be cooked. An easier way is to cook on the cinders, or where there is clay at hand, make a hard paste out of clay, flatten it out, put your food in rolled up like a pudding, and place it on top of the fire. As soon as the clay is burned the food is cooked. In this way you can also make vessels for cooking and keeping food. Sow-thistle grows everywhere near the shore, and is a very good and healthy vegetable when cooked, also the common fern-root baked is not bad. Then the heart of the mamuku, a fern tree, when boiled, is edible, and also various berries such as fuchsias, miro, tariti, tauwa, kaikatia, and in the north the heart of the nikau palm.

If you do not know where you are, never imagine you are lost; be cool, never allow yourself to get excited, and observe my former advice. If a party is together never part from each other until you all know the district well. During my travels in various countries I have had companions who, when we were away from any track or habitation in the dense forest, got excited and would have lost themselves had I not explained the way to get out. The mind is the master of the body; when the mind gives in the body is soon exhausted. In New Zealand forests there is no danger from thirst, as there is everywhere pure fresh water to be got.

A dog is a very good companion when well trained, but unfortunately most people take curs with them, do not look after or feed them, so the brutes kill and destroy birds whenever they find them. Only a short time ago I received

a letter from a friend on the West Coast complaining of two dogs run wild, who nearly cleared the district of the ground birds, till at last with great trouble he caught them.

I would only advise an experienced sportsman to carry a gun in dense parts of the forests, which are so entangled with undergrowth that an accident may easily happen. A proper sportsman will not slaughter every creature which comes across his path, as one man did in Waitakerei Ranges a few years ago during the shooting season, for several years making a trade out of it. A friend told me he shot seven hundred birds in one season, which were sent in sacks to town for sale. He went on till the birds got rare, and then he left the district, I suppose, to go on with his work of extermination somewhere else. On the west coast of the South Island some people and the natives go out catching ground birds in hundreds, salting them down. Some wanderers live mostly on birds. One of them told me that every day he camps out his dog catches two ground birds, one for himself and one for his master. He has lived on that coast for several years. Then the dogs are rarely chained up during the night; most of them delight in hunting down the nocturnal birds when out seeking for food.

There are a number of people over the whole country collecting birds, but very few understand how to prepare properly skins, sex, or classify them, and some produce such hideous creatures that they are of no use for science or anything else. If such people would spend their time in cultivating the land it would benefit them better. In some districts the kiwi, kakapo, and other birds are exterminated, and others nearly so. If they had only been used for scientific purposes or true sport, or even as subsistence for a hungry man, we should find them still in every district. The New Zealand birds are naturally tame and slow in their movements; all have not yet learned the danger of the gun, and they are as in former days when the snare and spear only lurked for them and demolished but a small number. They can never stand long against firearms, dogs of itinerant travellers, curs and cats run wild, imported ferrets, stoats, weasels, and innumerable rats which watch them day and night, destroying their eggs and their young. The birds that are not destroyed leave their beloved habitats in despair and seek those beautiful and secluded wilds away from their

enemies, where nature receives them smiling, and they can make a fresh home until so-called civilisation exterminates them, when kiwi and kakapo will be a thing of the past, like the moa and others.

Animals and birds love their habitats where they have been reared as much as we do our homes, and never leave them except when necessity compels. There are wanderers among them, but they only wander when scarcity of food compels them, or when they cannot stand the climate, and seek a milder one for a period, returning to their old haunts as soon as the season breaks.

If Austria had not a Forest Department, and officers who understand the work thoroughly taking great interest in the culture of forests and the inhabitants, the beautiful forests of that country would long ago have been demolished, and the numerous deer, roe, chamois, and other animals and birds of a very large variety exterminated.

