

Concerning Animals and Other Matters

E.H. Aitken, (AKA Edward Hamilton)

The Project Gutenberg EBook of Concerning Animals and Other Matters
by E.H. Aitken, (AKA Edward Hamilton)

This eBook is for the use of anyone anywhere at no cost and with
almost no restrictions whatsoever. You may copy it, give it away or
re-use it under the terms of the Project Gutenberg License included
with this eBook or online at www.gutenberg.net

Title: Concerning Animals and Other Matters

Author: E.H. Aitken, (AKA Edward Hamilton)

Release Date: February 6, 2004 [EBook #10962]

Language: English

Character set encoding: ASCII

*** START OF THIS PROJECT GUTENBERG EBOOK CONCERNING ANIMALS ***

Produced by Garrett Alley and the Online Distributed Proofreading Team

[Illustration: Portrait of "EHA."]

CONCERNING ANIMALS AND OTHER MATTERS

BY E.H. AITKEN ("EHA")

AUTHOR OF "FIVE WINDOWS OF THE SOUL," "TRIBES ON MY FRONTIER," ETC.

WITH A MEMOIR OF THE AUTHOR BY

SURGEON-GENERAL W.B. BANNERMAN I.M.S., C.S.I.

WITH ILLUSTRATIONS BY J A. SHEPHERD AND A PORTRAIT

LONDON

1914

CONTENTS

Livros Grátis

<http://www.livrosgratis.com.br>

Milhares de livros grátis para download.

"EHA"

- I FEET AND HANDS
- II BILLS OF BIRDS
- III TAILS
- IV NOSES
- V EARS
- VI TOMMY
- VII THE BARN OWL
- VIII DOMESTIC ANIMALS
- IX SNAKES
- X THE INDIAN SNAKE-CHARMER
- XI CURES FOR SNAKE-BITE
- XII THE COBRA BUNGALOW
- XIII THE PANTHER I DID NOT SHOOT
- XIV THE PURBHOO
- XV THE COCONUT TREE
- XVI THE BETEL NUT
- XVII A HINDU FESTIVAL
- XVIII INDIAN POVERTY
- XIX BORROWED INDIAN WORDS

Special thanks are due to the Editors and Proprietors of the _Strand Magazine, Pall Mall Magazine_ and _Times of India_ for their courtesy in permitting the reprinting of the articles in this book which originally appeared in their columns.

LIST OF ILLUSTRATIONS

HALF-TONES

"EHA"

THE NOSE OF THE ELEPHANT BECOMING A HAND HAS REDEEMED ITS MIND

GOOD FOR ANY ROUGH JOB

HERE THE COMPETITION HAS BEEN VERY KEEN INDEED

THE RAT IS A NEAR RELATION OF THE SQUIRREL ZOOLOGICALLY
BUT PERSONALLY HE IS A GUTTER-SNIPE, AND
YOU MAY KNOW THAT BY ONE LOOK AT THE TAIL, WHICH
HE DRAGS AFTER HIM LIKE A DIRTY ROPE

A BLACKBIRD AND A STARLING--THE ONE LIFTS ITS SKIRTS,
WHILE THE OTHER WEARS A WALKING DRESS

THE NOSTRILS OF THE APTERYX ARE AT THE TIP OF ITS BEAK

THE LONG-NOSED MONKEY

LINE BLOCKS

AN AUTHENTIC STANDARD FOOT

THESE BEASTS ARE ALL CLODHOPPERS, AND THEIR FEET
ARE HOBNAILED BOOTS

IT HAS TO DOUBLE THEM UNDER AND HOBBLE ABOUT LIKE
A CHINESE LADY

NO DOUBT EACH BIRD SWEARS BY ITS OWN PATTERN

ITS BILL DESERVES STUDY

AS WONDERFUL AS THE PELICAN, BUT HOW OPPOSITE!

THERE ARE SOME ECCENTRICS, SUCH AS JENNY WREN, WHICH
HAVE DESPISED THEIR TAILS

AT THE SIGHT OF A RIVAL THE DOG HOLDS ITS TAIL UP STIFFLY

A SHREW CAN DO IT, BUT NOT A MAN

A BOLD ATTEMPT TO GROW IN THE CASE OF A TAPIR

I HAVE SEEN HUMAN NOSES OF A PATTERN NOT UNLIKE THIS,
BUT THEY ARE NOT CONSIDERED ARISTOCRATIC

WHO CAN CONSIDER THAT NOSE SERIOUSLY?

OR PERHAPS WHEN IT WANTS TO LISTEN IT RAISES A FLIPPER TO ITS EAR

"TEAR OUT THE HOUSE LIKE THE DOGS WUZ ATTER HIM"

A GREAT CATHOLIC CONGRESS OF DISTINGUISHED EARS

THE CURLS OF A MOTHER'S DARLING

INTRODUCTION

"EHA"

Edward Hamilton Aitken, the author of the following sketches, was well known to the present generation of Anglo-Indians, by his pen-name of Eha, as an accurate and amusing writer on natural history subjects. Those who were privileged to know him intimately, as the writer of this sketch did, knew him as a Christian gentleman of singular simplicity and modesty and great charm of manner. He was always ready to help a fellow-worker in science or philanthropy if it were possible for him to do so. Thus, indeed, began the friendship between us. For when plague first invaded India in 1896, the writer was one of those sent to Bombay to work at the problem of its causation from the scientific side, thereby becoming interested in the life history of rats, which were shown to be intimately connected with the spread of this dire disease. Having for years admired Eha's books on natural history--_The Tribes on my Frontier_, _An Indian Naturalist's Foreign Policy_, and _The Naturalist on the Prowl_, I ventured to write to him on the subject of rats and their habits, and asked him whether he could not throw some light on the problem of plague and its spread, from the naturalist's

point of view.

In response to this appeal he wrote a most informing and characteristic article for *The Times of India* (July 19, 1899), which threw a flood of light on the subject of the habits and characteristics of the Indian rat as found in town and country. He was the first to show that *Mus rattus*, the old English black rat, which is the common house rat of India outside the large seaports, has become, through centuries of contact with the Indian people, a domestic animal like the cat in Britain. When one realises the fact that this same rat is responsible for the spread of plague in India, and that every house is full of them, the value of this naturalist's observation is plain. Thus began an intimacy which lasted till Eha's death in 1909.

The first time I met Mr. Aitken was at a meeting of the Free Church of Scotland Literary Society in 1899, when he read a paper on the early experiences, of the English in Bombay. The minute he entered the room I recognised him from the caricatures of himself in the *Tribes*. The long, thin, erect, bearded man was unmistakable, with a typically Scots face lit up with the humorous twinkle one came to know so well. Many a time in after-years has that look been seen as he discoursed, as only he could, on the ways of man and beast, bird or insect, as one tramped with him through the jungles on the hills around Bombay during week-ends spent with him at Vehar or elsewhere. He was an ideal companion on such occasions, always at his best when acting the part of *The Naturalist on the Prowl*.

Mr. Aitken was born at Satara in the Bombay Presidency on August 16, 1851. His father was the Rev. James Aitken, missionary of the Free Church of Scotland. His mother was a sister of the Rev. Daniel Edward, missionary to the Jews at Breslau for some fifty years. He was educated by his father in India, and one can well realise the sort of education he got from such parents from the many allusions to the Bible and its old Testament characters that one constantly finds used with such effect in his books. His farther education was obtained at Bombay and Poona. He passed M.A. and B.A. of Bombay University first on the list, and won the Homejee Cursetjee prize with a poem in 1880. From 1870 to 1876 he was Latin Reader in the Deccan College at Poona, which accounts for the extensive acquaintance with the Latin classics so charmingly manifest in his writings. That he was well grounded in Greek is also certain, for the writer, while living in a chummery with him in Bombay in 1902, saw him constantly reading the Greek Testament in the mornings without the aid of a dictionary.

He entered the Customs and Salt Department of the Government of Bombay in April 1876, and served in Kharaghoda (the Dustypore of the *Tribes*), Uran, North Kanara and Goa Frontier, Ratnagiri, and Bombay itself. In May, 1903, he was appointed Chief Collector of Customs and Salt Revenue at Karachi, and in November, 1905, was made Superintendent in charge of the District Gazetteer of Sind. He retired from the service in August 1906.

He married in 1883 the daughter of the Rev. J. Chalmers Blake, and left a family of two sons and three daughters.

In 1902 he was deputed, on special duty, to investigate the prevalence of malaria at the Customs stations along the frontier of Goa, and to devise means for removing the Salt Peons at these posts, from the neighbourhood of the anopheles mosquito, by that time recognised as the cause of the deadly malaria, which made service on that frontier dreaded by all.

It was during this expedition that he discovered a new species of anopheline mosquito, which after identification by Major James, I.M.S., was named after him Anopheles aitkeni. During his long service there are to be found in the Annual Reports of the Customs Department frequent mention of Mr. Aitken's good work, but it is doubtful whether the Government ever fully realised what an able literary man they had in their service, wasting his talent in the Salt Department. On two occasions only did congenial work come to him in the course of his public duty--namely, when he was sent to study, from the naturalist's point of view, the malarial conditions prevailing on the frontier of Goa; and when during the last two years of his service he was put in literary charge of The Sind Gazetteer. In this book one can see the light and graceful literary touch of Eha frequently cropping up amidst the dry bones of public health and commercial statistics, and the book is enlivened by innumerable witty and philosophic touches appearing in the most unlikely places, such as he alone could enliven a dull subject with. Would that all Government gazetteers were similarly adorned! But there are not many "Ehas" in Government employ in India.

On completion of this work he retired to Edinburgh, where most of the sketches contained in this volume were written. He was very happy with his family in his home at Morningside, and was beginning to surround himself with pets and flowers, as was his wont all his life, and to get a good connection with the home newspapers and magazines, when, alas! death stepped in, and he died after a short illness on April 25, 1909.

He was interested in the home birds and beasts as he had been with those in India, and the last time the writer met him he was taking home some gold-fish for his aquarium. A few days before his death he had found his way down to the Morningside cemetery, where he had been enjoying the sunshine and flowers of Spring, and he remarked to his wife that he would often go there in future to watch the birds building their nests.

Before that time came, he was himself laid to rest in that very spot in sure and certain hope of a blessed resurrection.

The above imperfect sketch fails to give the charm and magnetic attraction of the man, and for this one must go to his works, which for those who knew him are very illuminating in this respect. In them one catches a glimpse of his plan for keeping young and cheerful in "the land of regrets," for one of his charms was his youthfulness and interest in life. He refused to be depressed by his lonely life. "I am only an exile," he remarks, "endeavouring to work a successful existence in Dustypore, and not to let my environment shape me as a pudding takes the shape of its mould, but to make it tributary to my own happiness." He therefore urges his readers to cultivate a hobby.

"It is strange," he says, "that Europeans in India know so little, see so little, care so little, about all the intense life that surrounds them. The boy who was the most ardent of bug-hunters, or the most enthusiastic of bird-nesters in England, where one shilling will buy nearly all that is known, or can be known, about birds or butterflies, maintains in this country, aided by Messrs. B. & S., an unequal strife with the insupportableness of an ennui-smitten life. Why, if he would stir up for one day the embers of the old flame, he could not quench it again with such a prairie of fuel around him. I am not speaking of Bombay people, with their clubs and gymkhanas and other devices for oiling the wheels of existence, but of the dreary up-country exile, whose life is a blank, a moral Sahara, a catechism of the Nihilist creed. What such a one needs is a hobby. Every hobby is good--a sign of

good and an influence for good. Any hobby will draw out the mind, but the one I plead for touches the soul too, keeps the milk of human kindness from souring, puts a gentle poetry into the prosiest life. That all my own finer feelings have not long since withered in this land of separation from 'old familiar faces,' I attribute partly to a pair of rabbits. All rabbits are idiotic things, but these come in and sit up meekly and beg a crust of bread, and even a perennial fare of village _moorgee_ cannot induce me to issue the order for their execution and conversion into pie. But if such considerations cannot lead, the struggle for existence should drive a man in this country to learn the ways of his border tribes. For no one, I take it, who reflects for an instant will deny that a small mosquito, with black rings upon a white ground, or a sparrow that has finally made up its mind to rear a family in your ceiling, exercises an influence on your personal happiness far beyond the Czar of the Russias. It is not a question of scientific frontiers--the enemy invades us on all, sides. We are plundered, insulted, phlebotomised under our own vine and fig-tree. We might make head against the foe if we laid to heart the lesson our national history in India teaches--namely, that the way to fight uncivilised enemies is to encourage them to cut one another's throats, and then step in and inherit the spoil. But we murder our friends, exterminate our allies, and then groan under the oppression of the enemy. I might illustrate this by the case of the meek and long-suffering musk-rat, by spiders or ants, but these must wait another day."

Again he says, "The 'poor dumb animals' can give each other a bit of their minds like their betters, and to me their fierce and tender little passions, their loves and hates, their envies and jealousies, and their small vanities beget a sense of fellow-feeling which makes their presence society. The touch of Nature which makes the whole world kin is infirmity. A man without a weakness is insupportable company, and so is a man who does not feel the heat. There is a large grey ring-dove that sits in the blazing sun all through the hottest hours of the day, and says coo-coo, coo, coo-coo, coo until the melancholy sweet monotony of that sound is as thoroughly mixed up in my brain with 110 deg. in the shade as physic in my infantile memories with the peppermint lozenges which used to 'put away the taste,' But as for these creatures, which confess the heat and come into the house and gasp, I feel drawn to them. I should like to offer them cooling drinks. Not that all my midday guests are equally welcome: I could dispense, for instance, with the grey-ringed bee which has just reconnoitred my ear for the third time, and guesses it is a key-hole--she is away just now, but only, I fancy, for clay to stop it up with. There are others also to which I would give their _conge_ if they would take it. But good, bad, or indifferent they give us their company whether we want it or not."

Eha certainly found company in beasts all his life, and kept the charm of youth about him in consequence to the end. If his lot were cast, as it often was, in lonely places, he kept pets, and made friends besides of many of the members of the tribes on his frontier; if in Bombay city he consoled himself with his aquarium and the museum of the Bombay Natural History Society. When the present writer chummed with him in a flat on the Apollo Bunder in Bombay, he remembers well that aquarium and the Sunday-morning expeditions to the malarious ravines at the back of Malabar Hill to search for mosquito larvae to feed its inmates. For at that time Mr. Aitken was investigating the capabilities for the destruction of larvae, of a small surface-feeding fish with an ivory-white spot on the top of its head, which he had found at Vehar in the stream below the bund. It took him some time to identify these particular fishes (_Haplochilus lineatus_), and in the meantime he dubbed them "Scooties" from the lightning rapidity of their movements,

and in his own admirable manner made himself a sharer of their joys and sorrows, their cares and interests. With these he stocked the ornamental fountains of Bombay to keep them from becoming breeding-grounds for mosquitoes, and they are now largely used throughout India for this very purpose. It will be recognised, therefore, that Mr. Aitken studied natural history not only for its own sake, but as a means of benefiting the people of India, whom he had learned to love, as is so plainly shown in Behind the Bungalow.

He was an indefatigable worker in the museum of the Bombay Natural History Society, which he helped to found, and many of his papers and notes are preserved for us in the pages of its excellent Journal, of which he was an original joint-editor. He was for long secretary of the Insect Section, and then president. Before his retirement he was elected one of the Vice-Presidents of the Society.

Mr. Aitken was a deeply religious man, and was for some twenty years an elder in the congregation of the United Free Church of Scotland in Bombay. He was for some years Superintendent of the Sunday School in connection with this congregation, and a member of the Committee of the Bombay Scottish Orphanage and the Scottish High Schools. His former minister says of him, "He was deeply interested in theology, and remained wonderfully orthodox in spite of" (or, as the present writer would prefer to say, because of) "his scientific knowledge. He always thought that the evidence for the doctrine of evolution had been pressed for more than it was worth, and he had many criticisms to make upon the Higher Critics of the Bible. Many a discussion we had, in which, against me, he took the conservative side."

He lets one see very clearly into the workings of his mind in this direction in what is perhaps the finest, although the least well known of his books, The Five Windows of the Soul (John Murray), in which he discourses in his own inimitable way of the five senses, and how they bring man and beast into contact with their surroundings. It is a book on perceiving, and shows how according as this faculty is exercised it makes each man such as he is. The following extract from the book shows Mr. Aitken's style, and may perhaps induce some to go to the book itself for more from the same source. He is speaking of the moral sense. "And it is almost a truism to say that, if a man has any taste, it will show itself in his dress and in his dwelling. No doubt, through indolence and slovenly habits, a man may allow his surroundings to fall far below what he is capable of approving; but every one who does so pays the penalty in the gradual deterioration of his perceptions.

"How many times more true is all this in the case of the moral sense? When the heart is still young and tender, how spontaneously and sweetly and urgently does every vision of goodness and nobleness in the conduct of another awaken the impulse to go and do likewise! And if that impulse is not obeyed, how certainly does the first approving perception of the beauty of goodness become duller, until at last we may even come to hate it where we find it, for its discordance with the 'motions of sins in our members'!

"But not less certainly will every earnest effort to bring the life into unison with what we perceive to be right bring its own reward in a clearer and more joyful perception of what is right, and a keener sensitiveness to every discord in ourselves. How all such discord may be removed, how the chords of the heart may be tuned and the life become music,--these are questions of religion, which are quite beyond our scope. But I take it that every religion which has prevailed among the children of Adam is in itself an evidence that, however debased and

perverted the moral sense may have become, the painful consciousness that his heart is 'like sweet bells jangled' still presses everywhere and always on the spirit of man; and it is also a conscious or unconscious admission that there is no blessedness for him until his life shall march in step with the music of the 'Eternal Righteousness.'"

Mr. Aitken's name will be kept green among Anglo-Indians by the well-known series of books published by Messrs. Thacker & Co., of London and Calcutta. They are The Tribes on my Frontier, An Indian Naturalist's Foreign Policy, which was published in 1883, and of which a seventh edition appeared in 1910. This book deals with the common birds, beasts, and insects in and around an Indian bungalow, and it should be put into the hands of every one whose lot is cast in India. It will open their eyes to the beauty and interests of their surroundings in a truly wonderful way, and may be read again and again with increasing pleasure as one's experience of Indian life increases.

This was followed in 1889 by Behind the Bungalow, which describes with charming insight the strange manners and customs of our Indian domestic servants. The witty and yet kindly way in which their excellencies and defects are touched off is delightful, and many a harassed mem-sahib must bless Eha for showing her the humorous and human side of her life surrounded as it is by those necessary but annoying inhabitants of the Godowns behind the bungalow. A tenth edition of this book was published in 1911.

The Naturalist on the Prowl was brought out in 1894, and a third edition was published in 1905. It contains sketches on the same lines as those in The Tribes, but deals more with the jungles, and not so much with the immediate surroundings of the bungalow. The very smell of the country is in these chapters, and will vividly recall memories to those who know the country along the West Coast of India southward of Bombay.

In 1900 was published The Common Birds of Bombay, which contains descriptions of the ordinary birds one sees about the bungalow or in the country. As is well said by the writer of the obituary notice in the Journal of the Bombay Natural History Society, Eha "had a special genius for seizing the striking and characteristic points in the appearance and behaviour of individual species and a happy knack of translating them into print so as to render his descriptions unmistakable. He looked upon all creatures in the proper way, as if each had a soul and character of its own. He loved them all, and was unwilling to hurt any of them." These characteristics are well shown in this book, for one is able to recognise the birds easily from some prominent feature described therein.[1]

The Five Windows of the Soul, published by John Murray in 1898, is of quite another character from the above, and was regarded by its author with great affection as the best of his books. It is certainly a wonderfully self-revealing book, and full of the most beautiful thoughts. A second impression appeared in the following year, and a new and cheaper edition has just been published. The portrait of Eha is reproduced from one taken in 1902 in a flat on the Apollo Bunder, and shows the man as he was in workaday life in Bombay. The humorous and kindly look is, I think, well brought out, and will stir pleasant memories in all who knew Mr. Aitken.

W. B. B.

MADRAS, January 1914.

FOOTNOTES:

[Footnote 1: The illustrations are his own work, but the blocks having been produced in India, they do not do justice to the extreme delicacy of workmanship and fine perception of detail which characterise the originals, as all who have been privileged to see these will agree.]

CONCERNING ANIMALS

I

FEET AND HANDS

It is evident that, in what is called the evolution of animal forms, the foot came in suddenly when the backboned creatures began to live on the dry land--that is, with the frogs. How it came in is a question which still puzzles the phylogenists, who cannot find a sure pedigree for the frog. There it is, anyhow, and the remarkable point about it is that the foot of a frog is not a rudimentary thing, but an authentic standard foot, like the yard measure kept in the Tower of London, of which all other feet are copies or adaptations. This instrument, as part of the original outfit given to the pioneers of the brainy, backboned, and four-limbed races, when they were sent out to multiply and replenish the earth, is surely worth considering well. It consists essentially of a sole, or palm, made up of small bones and of five separate digits, each with several joints.

[Illustration: AN AUTHENTIC STANDARD FOOT.]

In the hind foot of a frog the toes are very long and webbed from point to point. In this it differs a good deal from the toad, and there is significance in the difference. The "heavy-gaited toad," satisfied with sour ants, hard beetles, and such other fare as it can easily pick up, and grown nasty in consequence, so that nothing seeks to eat it, has hobbled through life, like a plethoric old gentleman, until the present day, on its original feet. The more versatile and nimble-witted frog, seeking better diet and greater security of life, went back to the element in which it was bred, and, swimming much, became better fitted for swimming. The soft elastic skin between the fingers or toes is just the sort of tissue which responds most readily to inward impulses, and we find that the very same change has come about in those birds and beasts which live much in water. I know that this is not the accepted theory of evolution, but I am waiting till it shall become so. We all develop in the direction of our tendencies, and shall, I doubt not, be wise enough some day to give animals leave to do the same.

It seems strange that any creature, furnished with such tricky and adaptable instruments to go about the world with, should tire of them and wish to get rid of them, but so it happened at a very early stage. It must have been a consequence, I think, of growing too fast. Mark Twain remarked about a dachshund that it seemed to want another pair of

legs in the middle to prevent it sagging. Now, some lizards are so long that they cannot keep from sagging, and their progress becomes a painful wriggle. But if you must go by wriggling, then what is the use of legs to knock against stems and stones? So some lizards have discarded two of their legs and some all four. Zoologically they are not snakes, but snakes are only a further advance in the same direction. That snakes did not start fair without legs is clear, for the python has to this day two tell-tale leg-bones buried in its flesh.

When we pass from reptiles to birds, lo! an astounding thing has happened. That there were flying reptiles in the fossil ages we know, and there are flying beasts in our own. But the wings of these are simple mechanical alterations, which the imagination of a child, or a savage, could explain.

The hands of a bat are hands still, and, though the fingers are hampered by their awkward gloves, the thumbs are free. The giant fruit bats of the tropics clamber about the trees quite acrobatically with their thumbs and feet.

That Apollyonic monster of the prime, the pterodactyl, did even better. Stretching on each little finger a lateen sail that would have served to waft a skiff across the Thames, it kept the rest of its hands for other uses. But what bearing has all this on the case of birds? Here is a whole sub-kingdom, as they call it, of the animal world which has unreservedly and irrevocably bartered one pair of its limbs for a flying-machine. The apparatus is made of feathers--a new invention, unknown to amphibian or saurian, whence obtained nobody can say--and these are grafted into the transformed frame of the old limbs. The bargain was worth making, for the winged bird at once soared away in all senses from the creeping things of earth, and became a more ethereal being; "like a blown flame, it rests upon the air, subdues it, surpasses it, outraces it; it is the air, conscious of itself, conquering itself, ruling itself." But the price was heavy. The bird must get through life with one pair of feet and its mouth. But this was all the bodily furniture of Charles Francois Felu, who, without arms, became a famous artist.

A friend of mine, standing behind him in a _salon_ and watching him at work, saw him lay down his brush and, raising his foot to his head, take off his hat and scratch his crown with his great toe. My friend was nearly hypnotised by the sight, yet it scarcely strikes us as a wonder when a parrot, standing on one foot, takes its meals with the other. It is a wonder, and stamps the parrot as a bird of talent. A mine of hidden possibilities is in us all, but those who dig resolutely into it and bring out treasure are few.

And let us note that the art of standing began with birds. Frogs sit, and, as far as I know, every reptile, be it lizard, crocodile, alligator, or tortoise, lays its body on the ground when not actually carrying it. And these have each four fat legs. Contrast the flamingo, which, having only two, and those like willow wands, tucks up one of them and sleeps poised high on the other, like a tulip on its stem.

Note also that one toe has been altogether discarded by birds as superfluous. The germ, or bud, must be there, for the Dorking fowl has produced a fifth toe under some influence of the poultry-yard, but no natural bird has more than four. Except in swifts, which never perch, but cling to rocks and walls, one is turned backwards, and, by a cunning contrivance, the act of bending the leg draws them all automatically together. So a hen closes its toes at every step it takes, as if it

grasped something, and, of course, when it settles down on its roost, they grasp that tight and hold it fast till morning. But to birds that do not perch this mechanism is only an encumbrance, so many of them, like the plovers, abolish the hind toe entirely, and the prince of all two-legged runners, the ostrich, has got rid of one of the front toes also, retaining only two.

[Illustration: THESE BEASTS ARE ALL CLODHOPPERS, AND THEIR FEET ARE HOBNAILED BOOTS.]

To a man who thinks, it is very interesting to observe that beasts have been led along gradually in the very same direction. All the common beasts, such as cats, dogs, rats, stoats, and so on, have five ordinary toes. On the hind feet there may be only four. But as soon as we come to those that feed on grass and leaves, standing or walking all the while, we find that the feet are shod with hoofs instead of being tipped with claws. First the five toes, though clubbed together, have each a separate hoof, as in the elephant; then the hippopotamus follows with four toes, and the rhinoceros with practically three. These beasts are all clodhoppers, and their feet are hobnailed boots. The more active deer and all cattle keep only two toes for practical purposes, though stumps of two more remain. Finally, the horse gathers all its foot into one boot, and becomes the champion runner of the world.

It is not without significance that this degeneracy of the feet goes with a decline in the brain, whether as cause or effect I will not pretend to know. These hoofed beasts have shallow natures and live shallow lives. They eat what is spread by Nature before their noses, have no homes, and do nothing but feed and fight with each other. The elephant is a notable exception, but then the nose of the elephant, becoming a hand, has redeemed its mind. As for the horse, whatever its admirers may say, it is just a great ass. There is a lesson in all this: "from him that hath not shall be taken even that which he hath."

There is another dull beast which, from the point of view of the mere systematist, seems as far removed from those that wear hoofs as it could be, but the philosopher, considering the point at which it has arrived, rather than the route by which it got there, will class it with them, for its idea of life is just theirs turned topsy-turvy. The nails of the sloth, instead of being hammered into hoofs on the hard ground, have grown long and curved, like those of a caged bird, and become hooks by which it can hang, without effort, in the midst of the leaves on which it feeds. A minimum of intellect is required for such an existence, and the sloth has lost any superfluous brain that it may have had, as well as two, or even three, of its five toes.

To return to those birds and beasts with standard feet, I find that the first outside purpose for which they find them serviceable is to scratch themselves. This is a universal need. But a foot is handy in many other ways. A hen and chickens, getting into my garden, transferred a whole flower-bed to the walk in half an hour. Yet a bird trying to do anything with its foot is like a man putting on his socks standing, and birds as a race have turned their feet to very little account outside of their original purpose. Such a simple thing as holding down its food with one foot scarcely occurs to an ordinary bird. A hen will pull about a cabbage leaf and shake it in the hope that a small piece may come away, but it never enters her head to put her foot on it. In this and other matters the parrot stands apart, and also the hawk, eagle, and owl; but these are not ordinary birds.

Beasts, having twice as many feet as birds, have learned to apply them

to many uses. They dig with them, hold down their food with them, fondle their children with them, paw their friends, and scratch their enemies. One does more of one thing and another of another, and the feet soon show the effects of the occupation, the claws first, then the muscles, and even the bones dwindling by disuse, or waxing stout and strong. Then the joy of doing what it can do well impels the beast further on the same path, and its offspring after it.

[Illustration: THE NOSE OF THE ELEPHANT BECOMING A HAND HAS REDEEMED ITS MIND]

And this leads at last to specialism. The Indian black bear is a "handy man," like the British Tar--good all round. Its great soft paw is a very serviceable tool and weapon, armed with claws which will take the face off a man or grub up a root with equal ease. When a black bear has found an ant-hill it takes but a few minutes to tear up the hard, cemented clay and lay the deep galleries bare; then, putting its gutta-percha muzzle to the mouth of each, it draws such a blast of air through them that the industrious labourers are sucked into its gullet in drifts. Afterwards it digs right down to the royal chamber, licks up the bloated queen, and goes its way.

But there is another worker in the same mine which does not go to work this way. The ant-eater found fat termites so satisfying that it left all other things and devoted its life to the exploiting of anthills, and now it has no rival at that business, but it is fit for nothing else. Its awkward digging tools will not allow it to put the sole of its foot to the ground, so it has to double them under and hobble about like a Chinese lady. It has no teeth, and stupidity is the most prominent feature of its character. It has become that poor thing, a man of one idea.

But the bear is like a sign-post at a parting of the ways. If you compare a brown bear with the black Indian, or sloth bear, as it is sometimes called, you may detect a small but pregnant difference. When the former walks, its claws are lifted, so that their points do not touch the ground. Why? I have no information, but I know that it is not content with a vegetarian diet, like its black relative, but hankers after sheep and goats, and I guess that its murderous thoughts flow down its nerves to those keen claws. It reminds me of a man clenching his fist unconsciously when he thinks of the liar who has slandered him.

[Illustration: IT HAS TO DOUBLE THEM UNDER AND HOBBLE ABOUT LIKE A CHINESE LADY.]

But what ages of concentration on the thought and practice of assassination must have been required to perfect that most awful weapon in Nature, the paw of a tiger, or, indeed, of any cat, for they are all of one pattern. The sharpened flint of the savage has become the scimitar of Saladin, keeping the keenness of its edge in a velvet sheath and flashing out only on the field of battle. Compare that paw with the foot of a dog, and you will, perhaps, see with me that the servility and pliancy of the slave of man has usurped a place in his esteem which is not its due. The cat is much the nobler animal. Dogs, with wolves, jackals, and all of their kin, love to fall upon their victim in overwhelming force, like a rascally mob, and bite, tear, and worry until the life has gone out of it; the tiger, rushing single-handed, with a fearful challenge, on the gigantic buffalo, grasps its nose with one paw and its shoulder with the other, and has broken its massive neck in a manner so dexterous and instantaneous that scarcely two sportsmen can agree about how the thing is done.

I have said that the foot first appeared when the backboned creatures came out of the waters to live upon the dry land. But all mundane things (not excepting politics) tend to move in circles, ending where they began; and so the foot, if we follow it far enough, will take us back into water. See how the rat--I mean our common, omnivorous, scavenging, thieving, poaching brown rat--when it lives near a pond or stream, learns to swim and dive as naturally as a duck. Next comes the vole, or water-rat, which will not live away from water. Then there are water shrews, the beaver, otter, duck-billed platypus, and a host of others, not related, just as, among birds, there are water ousels, moorhens, ducks, divers, etc., which have permanently made the water their home and seek their living in it. All these have attained to web-footedness in a greater or less degree.

That this has occurred among reptiles, beasts, and birds alike shows what an easy, or natural, or obvious (put it as you will) modification it is. And it has a consequence not to be escaped. Just as a man who rides a great deal and never walks acquires a certain indirectness of the legs, and you never mistake a jockey for a drill-sergeant, so the web-footed beasts are not among the things that are "comely in going."

Following this road you arrive at the seal and sea-lion. Of all the feet that I have looked at I know only one more utterly ridiculous than the twisted flipper on which the sea-lion props his great bulk in front, and that is the forked fly-flap which extends from the hinder parts of the same. How can it be worth any beast's while to carry such an absurd apparatus with it just for the sake of getting out into the air sometimes and pushing itself about on the ice and being eaten by Polar bears? The porpoise has discarded one pair, turned the other into decent fins, and recovered a grace and power of motion in water which are not equalled by the greyhound on land. Why have the seals hung back? I believe I know the secret. It is the baby! No one knows where the porpoise and the whale cradle their newborn infants--it is so difficult to pry into the domestic ways of these sea-people--but evidently the seals cannot manage it, so they are forced to return to the land when the cares of maternity are on them.

I have called the feet of these sea beasts ridiculous things, and so they are as we see them; but strip off the skin, and lo! there appears a plain foot, with its five digits, each of several joints, tipped with claws--nowise essentially different, in short, from that with which the toad, or frog, first set out in a past too distant for our infirm imagination. Admiration itself is paralysed by a contrivance so simple, so transmutable, and so sufficient for every need that time and change could bring.

There remains yet one transformation which seems simple compared with some that I have noticed, but is more full of fate than they all; for by it the foot becomes a hand. This comes about by easy stages. The reason why one of a bird's four toes is turned back is quite plain: trees are the proper home of birds, and they require feet that will grasp branches. So those beasts also that have taken to living in trees have got one toe detached more or less from the rest and arranged so that it can co-operate with them to catch hold of a thing. Then other changes quickly follow. For, in judging whether you have got hold of a thing and how much force you must put forth to keep hold of it, you are guided entirely by the pressure on the finger-points, and to gauge this pressure nicely the nerves must be refined and educated. In fact, the exercise itself, with the intent direction of the mind to the finger-points, brings about the refinement and education in accordance

with Sandow's principle of muscle culture.

For an example of the result do not look at the gross paw of any so-called anthropoid ape, gorilla, orang-outang, or chimpanzee, but study the gentle lemur. At the point of each digit is a broad elastic pad, plentifully supplied with delicate nerves, and the vital energy which has been directed into them appears to have been withdrawn from the growth of the claws, which have shrunk into fine nails just shielding the fleshy tips. In short, the lemur has a hand on each of its four limbs, and no feet at all. And as it goes about its cage--I am at the Zoo in spirit--with a silent wonder shining out of its great eyes, it examines things by feeling them with its hands.

How plainly a new avenue from the outer world into its mind has been opened by those fingers! But how about scratching? What would be the gain of having higher susceptibilities and keener perceptions if they only aggravated the triumph of the insulting flea? Nay, this disaster has been averted by reserving a good sharp claw on the forefinger (not the thumb) of each hind hand.

The old naturalists called the apes and lemurs *Quadrumania*, the "four-handed," and separated the *Bimana*, with one species--namely, *Homo sapiens*. Now we have anatomy cited to belittle the difference between a hand and a foot, and geology importuned to show us the missing link, pending which an order has been instituted roomy enough to hold monkeys, gorillas, and men. It is a strange perversity. How much more fitting it were to bow in reverent ignorance before the perfect hand, taken up from the ground, no more to dull its percipient surfaces on earth and stones and bark, but to minister to its lord's expanding mind and obey his creative will, while his frame stands upright and firm upon a single pair of true feet, with their toes all in one rank.

II

BILLS OF BIRDS

The prospectus, or advertisement, of a certain American typewriting machine commences by informing the public that "The ---- typewriter is founded on an idea." When I saw this phrase I secured it for my collection, for I felt that, without jest, it contained the kernel of a true philosophy of Nature. The forms, the phenomena, of Nature are innumerable, multifarious, interwoven, and infinitely perplexing, and you may spend a happy life in unravelling their relations and devising their evolutions; but until you have looked through them and seen the ideas that are behind them you are a mere materialist and a blind worker. The soul of Nature is hid from you.

What is the bill of a bird and what does it mean? I do not refer to the bill of a hawk, or a heron, or an owl, or an ostrich, but to that which is the abstract of all these and a thousand more. I hold, regardless of anatomy and physiology, that a bird is a higher being than a beast. No beast soars and sings to its sweetheart; no beast remains in lifelong partnership with the wife of its youth; no beast builds itself a summer-house and decks it with feathers and bright shells. A beast is a grovelling denizen of the earth; a bird is a free citizen of the air. And who can say that there is not a connection between this difference and other developments? The beast, thinking only of its appetites, has

evolved a delicate nose, a discriminating palate, three kinds of teeth to cut, tear, and grind its food, salivary glands to moisten the same, and a perfected apparatus of digestion.

[Illustration: GOOD FOR ANY ROUGH JOB]

The bird, occupied with thoughts of love and beauty, with "fields, or waves, or mountains" and "shapes of sky or plain," has made little advance in the art and instruments of good living. It swallows its food whole, scarcely knowing the taste of it, and a pair of forceps for picking it up, tipped and cased with horn, is the whole of its dining furniture. For the bill of a bird, primarily and essentially, is that and nothing else. In the chickens and the sparrows that come to steal their food, and the robin that looks on, and all the little dicky-birds, you may see it in its simplicity. The size and shape may vary, as a Canadian axe differs from a Scotch axe; some are short and stout and have a sharp edge for shelling seeds; some are longer and fine-pointed, for picking worms and caterpillars out of their hiding-places; some a little hooked at their points, and one, that of the crossbill, with points crossed for picking the small seeds out of fir-cones; but all are practically the same tool. Yet the last distinctly points the way to those modifications by which the simple bill is gradually adapted to one special purpose or another, until it becomes a wonderful mechanism in which the original intention is quite out of sight.

At this point I find an instructive parable in my tool chest. Fully half of the tools are just knives. A chisel is a knife, a plane is a knife set in a block of wood, a saw is a knife with the edge notched. Moreover, there are many sorts of curious planes and saws, each intended for one distinct kind of fine work. All these the joiner has need of, but a schoolboy would rather have one good, strong pocket-knife than the whole boxful. For, just in proportion as each tool is perfected for its own special work, it becomes useless for any other. And your schoolboy is not a specialist. He wants a tool that will cut a stick, carve a boat, peel an apple, dig out a worm--in short, one that will do whatever his active mind wants done.

Now apply this parable to the birds. If you see a bill that is nothing but a large and powerful pair of forceps, good for any rough job, you may know without further inquiry that the owner is no limited specialist, but a "handy man," bold, enterprising, resourceful, and good all round. He will not starve in the desert. No wholesome food comes amiss to him--grub, slug, or snail, fruit, eggs, a live mouse or a dead rat, and he can deal with them all. Such are the magpie, the crow, the jackdaw, and all of that ilk; and these are the birds that are found in all countries and climates, and prosper wherever they go.

[Illustration: NO DOUBT EACH BIRD SWEARS BY ITS OWN PATTERN.]

But all birds cannot play that part. One is timid, another fastidious, another shy but ingenious. So, in the universal competition for a living, each has taken its own line according to the bent of its nature, and its one tool has been perfected for its trade until it can follow no other. The thrush catches such worms as rashly show themselves above-ground; but an ancient ancestor of the snipe found that, if it followed them into marshy lands, it could probe the soft ground and drag them out of their chambers. For this operation it has now a bill three inches long, straight, thin and sensitive at the tip, a beautiful instrument, but good for no purpose except extracting worms from soft ground. If frost or drought hardens the ground, the snipe must starve or travel. Among the many "lang nebbit" birds that follow the same

profession as the snipe, some, like the curlew and the ibis, have curved bills of prodigious length. I do not know the comparative advantages of the two forms, but no doubt each bird swears by its own pattern, as every golfer does by his own putter.

But now behold another grub-hunter, which, distasting mud, has discovered an unworked mine in the trunks of trees. There, in deep burrows, lurked great succulent beetle-grubs, demanding only a tool with which they might be dug out. This has been perfected by many stages, and I have now before me a splendid specimen of the most improved pattern--namely, the bill of the great black woodpecker of Western India, a bird nearly as big as a crow. It is nothing else than a hatchet in two parts, which, when locked together, present a steeled edge about three-eighths of an inch in breadth. The hatchet is two and a half inches long by one in breadth at the base, and a prominent ridge, or keel, runs down the top from base to point. It is further strengthened by a keel on each side. Inside of it, ere the bird became a mummy, was her tongue, which I myself drew out three inches beyond the point of the bill. It was rough and tough, like gutta-percha, tipped with a fine spike, and armed on each side, for the last inch of its length, with a row of sharp barbs pointing backwards. The whole was lubricated with some patent stickfast, "always ready for use." That grub must sit tight indeed which this corkscrew will not draw when once the hatchet has opened a way.

The swallows and swifts, untirable on their wings, but too gentle to hold their own in a jostling crowd, soared away after the midges and May-flies and pestilent gnats that rise from marsh and pond to hold their joyous dances under the blue dome. Continually rushing open-mouthed after these, they have stretched their gape from ear to ear; but their bills have dwindled by disuse and left only an apology for their absence.

Compared with all these, the birds that can do with a diet of fruit only lead an easy life. They have just to pluck and eat--that is, if they are pleased with small fruits and content to swallow them whole. But the hornbills, being too bulky to hop among twigs, need a long reach; hence the portentous machines which they carry on their faces. The beak of a hornbill is nothing else than a pair of tongs long enough to reach and strong enough to wrench off a wild fig from its thick stem. If it were of iron it would be thin and heavy; being of cellular horn-stuff it is bulky but light. If you ask why it should rise up into an absurd helmet on the queer fowl's head, I cannot tell. Nature has quaint ways of using up surplus material.

[Illustration: ITS BILL DESERVES STUDY]

An easy life begets luxury, and among fruit-eaters the parrot has become an epicure. It will not swallow its food whole, and its bill deserves study. In birds generally the upper mandible is more or less joined to the skull, leaving only the lower jaw free to move. But in the parrot the upper mandible is also hinged, so that each plays freely on the other. The upper, as we all know, is hooked and pointed; the lower has a sharp edge. The tongue is thick, muscular, and sensitive. The whole makes a wonderful instrument, unique among birds, for feelingly manipulating a dainty morsel, shelling, peeling, and slicing, until nothing is left but the sweetest part of the core. Of all gourmands Polly is the most shameless waster.

Long before land, trees, and air had been exploited the primitive bird must have discovered the harvest of the waters, and here the competition

has been very keen indeed. Yet the form of bill most in use is very simple--just a plain pair of forceps, long and sharp-pointed like scissors. This is evidently hard to beat, for birds of many sorts use it, handling it variously. The kingfisher plumps bodily down on the minnow from an overhanging perch; the solan goose, soaring, plunges from a "pernicious height"; the heron, high on its stilts, darts out a long and serpentine neck; the diver, with similar beak and neck, but different legs, pursues the fleeing shoals under water; to the swift and slippery fish all are alike terrible in their certainty.

There are, however, other varieties of the fishing bill. Some have a hook at the point, as that of the cormorant, and some are straight at the top, but curved on the under side. This last form is handy for storks, which do not pluck fish out of water so much, but scoop up frogs, crabs, and reptiles from the ground. The ridiculous bill of the puffin, or sea-parrot, is an eccentricity. There may be some idea in it, but I suspect it is an effect of vanity merely, being coloured blue, yellow, and red, and quite in keeping with the other absurdities of the wearer.

Apart from all these and by itself stands a princely fisher whose bill is no modification, but an original invention and a marvellous one. Larger than a swan and gluttonous withal, the pelican cannot live on single fishes. It has given up angling altogether and taken to netting; and the way in which the net has been constructed out of the pair of forceps provided in the original plan of its construction is as well worth your examining as anything I know. It is a foot in length, the upper jaw is flat and broad, while the lower consists of two thin, elastic bones joined at the point, a mere ring to carry the curious yellow bag that hangs from it. In pictures this is represented as a creel in which the kind pelican carries home the children's breakfast; you are allowed to see the tail of a big fish hanging out. But it is not a creel; it is a net. The great birds, marshalled in line on some broad lake or marsh, and beating the water with their wings, drive the fish before them until they have got a dense crowd huddled in panic and confusion between them and the shore. Now watch them narrowly. As each monstrous bill opens, the thin bones of the lower jaw stretch sideways to the breadth of a span by some curious mechanism not described in the books, and at the same time the shrunken bag expands into a deep, capacious net. Simultaneously the whole instrument is plunged into the struggling, silvery mass and comes up full. The side bones instantly contract again, and the upper jaw is clapped on them like a lid. No wonder the fishermen of the East detest the pelican.

[Illustration: HERE THE COMPETITION HAS BEEN VERY KEEN INDEED.]

[Illustration: AS WONDERFUL AS THE PELICAN, BUT HOW OPPOSITE!]

In the same marsh, perhaps, standing with unequalled grace upon the longest legs known in this world, is a troop of giant birds as wonderful as the pelican, but how opposite! The beautiful flamingo is a bird of feeble intellect, delicate appetite, and genteel tastes. It cannot eat fish, for its slender throat would scarcely admit a pea. Besides, the idea of catching anything, or even picking up food from the ground, does not occur to its simple mind. Its diet consists of certain small crustaceans, classed by naturalists with water-fleas, which abound in brackish water; and it has an instrument for taking these which it knows how to use. I kept flamingos once, and, after trying many things in vain, offered them bran, or boiled rice, floating in water. Then they dined, and I learned the construction and working of the most marvellous of all bills. The lower jaw is deep and hollow, and its upper edges turn

in to meet each other, so that you may fairly describe it as a pipe with a narrow slit along the upper side. In this pipe lies the tongue, and it cannot get out, for it is wider than the slit, but it can be pressed against the top to close the slit, and then the lower jaw becomes an actual pipe. The root of the tongue is furnished on both sides with a loose fringe which we will call the first strainer. The upper jaw is thin and flat and rests on the lower like a lid, and it is beautifully fringed along both sides with small, leathery points, close set, like the teeth of a very fine saw. This is the second strainer. To work the machine you dip the point into dirty water full of water-fleas, draw back the tip of the tongue a little, and suck in water till the lower jaw (the pipe) is full, then close the point again with the tip of the tongue and force the water out. It can only get out by passing through the first strainers at the root of the tongue, then over the palate, and so through the second strainers at the sides of the bill; and all the solid matter it contained will remain in the mouth. The sucking in and squirting out of the water is managed by the cheeks, or rather by the cheek, for a flamingo has only one cheek, and that is situated under the chin. When the bird is feeding you will see this throbbing faster than the eye can follow it, while water squirts from the sides of the mouth in a continuous stream. I should have said that the whole bill is sharply bent downwards at the middle. The advantage of this is that when the bird lets down its head into the water, like a bucket into a well, the point of the bill does not stick in the mud, but lies flat on it, upside down.

In conclusion, let us not fail to note, whatever be our political creed, that, while all the birds pursue their respective industries, there sit apart, in pride of place, some whose bills are not tools wherewith to work, but weapons wherewith to slay. And these take tribute of the rest, not with their consent, but of right.

III

TAILS

The secrets of Nature often play like an iridescence on the surface, and escape the eye of her worshipper because it is stopped with a microscope. There are mysteries all about us as omnipresent as the movement of the air that lifts the smoke and stirs the leaves, which I cannot find that any philosopher has looked into. Often and deeply have I been impressed with this. For example, there is scarcely, in this world, a commoner or a humbler thing than a tail, yet how multifarious is it in aspect, in construction, and in function, a hundred different things and yet one. Some are of feathers and some of hair, and some bare and skinny; some are long and some are short, some stick up and some hang down, some wag for ever and some are still; the uses that they serve cannot be numbered, but one name covers them all. In the course of evolution they came in with the fishes and went out with man. What was their purpose and mission? What place have they filled in the scheme of things? In short, what is the true inwardness of a tail?

If we try to commence--as scientific method requires--with a definition, we stumble on a key, at the very threshold, which opens the door. For there is no definition of a tail; it is not, in its nature, anything at all. When an animal's fore-legs are fitted on to its backbone at the proper distance from the hind-legs, if any of the

backbone remains over, we call it a tail. But it has no purpose; it is a mere surplus, which a tailor (the pun is unavoidable) would have trimmed off. And, lo! in this very negativeness lies the whole secret of the multifarious positiveness of tails. For the absence of special purpose is the chance of general usefulness. The ear must fulfil its purpose or fail entirely, for it can do nothing else. Eyes, nose and mouth, hands and feet, all have their duties; the tail is the unemployed. And if we allow that life has had any hand in the shaping of its own destiny, then the ingenuity of the devices for turning the useless member to account affords one of the most exhilarating subjects of contemplation in the whole panorama of Nature. The fishes fitted it up at once as a twin-propeller, with results so satisfactory that the whale and the porpoise, coming long after, adopted the invention. And be it noted that these last and their kin are now the only ocean-going mammals in the world. The whole tribe of paddle-steamers, such as seals and walruses and dugongs, are only coasters.

Among those beasts that would live on the dry land, the primitive kangaroo could think of nothing better to do with his tail than to make a stool of it. It was a simple thought, but a happy one. Sitting up like a gentleman, he has his hands free to scratch his ribs or twitch his moustache. And when he goes he needs not to put them to the ground, for his great tail so nearly equals the weight of his body that one pair of legs keeps the balance even. And so the kangaroo, almost the lowest of beasts, comes closer to man in his postures than any other. The squirrel also sits up and uses his forepaws for hands, but the squirrel is a sybarite who lies abed in cold weather, and it is every way characteristic of him that he has sent his tail to the furrier and had it done up into a boa, or comforter, at once warm and becoming. See, too, how daintily he lifts it over his back to keep it clean. The rat is a near relation of the squirrel zoologically, but personally he is a gutter-snipe, and you may know that by one look at the tail which he drags after him like a dirty rope. Others of the same family, cleaner, though not more ingenious, like the guinea-pig, have simply dispensed with the encumbrance; but the rabbit has kept enough to make a white cockade, which it hoists when bolting from danger. This is for the guidance of the youngsters. Nearly every kind of deer and antelope carries the same signal, with which, when fleeing through dusky woods, the leader shows the way to the herd and the doe to her fawn.

But of beasts that graze and browse, a large number have turned their tails rather to a use which throws a pathetic light on misery of which we have little experience. We do, indeed, growl at the gnats of a summer evening and think ourselves very ill-used. How little do we know or think of the unintermitted and unabated torment that the most harmless classes of beasts suffer from the bands of beggars which follow them night and day, demanding blood, and will take no refusal. Driven from the brow they settle on the neck, shaken from the neck they dive between the legs, and but for that far-reaching whisk at the end of the tail, they would found a permanent colony on the flanks and defy ejection, like the raiders of Vatersay. Darwin argues that the tail-brush may have materially helped to secure the survival of those species of beasts that possessed it, and no doubt he is right.

The subject is interminable, but we must give a passing glance to some quixotic tails. The opossum scampers up a tree, carrying all her numerous family on her back, and they do not fall off because each infant is securely moored by its own tail to the uplifted tail of its mother. The opossum is a very primitive beast, and so early and useful an invention should, one would think, have been spread widely in after time; but there appears to be some difficulty in developing muscles at

the thin end of a long tail, for the animals that have turned it into a grasping organ are few and are widely scattered. Examples are the chameleon among lizards, our own little harvest mouse, and, pre-eminent above all, the American monkeys. To a howler, or spider-monkey, its long tail is a swing and a trapeze in its forest gymnasium. Humboldt saw (he says it) a cluster of them all hanging from a tree by one tail, which proceeded from a Sandoz in the middle. I should like to see that too. It is worth noting, by the way, that no old-world monkey has attained to this application of its tail.

Then there is the beaver, whose tail I am convinced is a trowel. I know of no naturalist who has mentioned this, but such negative evidence is of little weight. The beaver, as everybody knows, is a builder, who cuts down trees and piles log upon log until he has raised a solid, domed cabin from seven to twenty feet in diameter, which he then plasters over with clay and straw. If he does not turn round and beat the work smooth with his tail, then I require to know for what purpose he carries that broad, heavy, and hard tool behind him.

How few even among lovers of Nature know why a frog has no tail! The reason-is simply that it used that organ up when it was in want. In early life, as a jolly tadpole, it had a flourishing tail to swim with, and gills for breathing water, and an infantile mouth for taking vegetable nourishment. But when it began to draw near to frog's estate, serious changes were required in its structure to fit it for the life of a land animal. Four tiny legs appeared from under its skin, the gills gave place to air-breathing lungs, and the infant lips to a great, gaping mouth. Now, during this "temporary alteration of the premises" all business was of necessity stopped. The half-fish, half-frog could neither sup like an infant nor eat like a man. In this extremity it fed on its own tail--absorbed it as a camel is said to absorb its hump when travelling in the foodless desert--and so it entered on its new life without one.

Aeronautics have changed the whole perspective of life for birds, as they may for us shortly; so it is no surprise to find that birds have, almost with one consent, converted their tails into steering-gear. A commonplace bird, like a sparrow, scarcely requires this except as a brake when in the act of alighting; but to those birds with which flight is an art and an accomplishment, an expansive forked or rounded tail (there are two patents) is indispensable. We have shot almost all the birds of this sort in our own country, and must travel if we would enjoy that enchanting sight--a pair of eagles or a party of kites gone aloft for a sail when the wind is rising, like skaters to a pond when the ice is bearing. For an hour on end, in restful ease or swift joy, they trace ever-varying circles and spirals against the dark storm-cloud, now rising, now falling, turning and reversing, but never once flapping their widespread pinions.

How is it done? How does the _Shamrock_ sail? Watch, and you will see. When the wind is behind, each stiff quill at the end of the wing stands out by itself and is caught and driven by the blast; but as the bird turns round to face the gale, they all close up and form a continuous mainsail, close-hauled. And all the while the expanded tail is in play, dipping first at one side and then at the other, and turning the trim craft with easy grace "as the governor listeth."

[Illustration: THERE ARE SOME ECCENTRICS, SUCH AS JENNY WREN, WHICH HAVE DESPISED THEIR TAILS.]

Besides ground birds, like the quail, there are some eccentrics, such as

Jenny wren, which have despised their tails, and there are specialists also which require them for other purposes than flying. The woodpecker's tail is quite useless as a rudder, for he is a woodman and has altered and adapted it for a portable stool to rest against as he plies his axe.

But that man must be very blind to the place which birds have taken in the progress of civilisation who can suppose it possible that they should think only of utility in such a question as the disposal of their tails. It is a common notion among those who have acquired some smattering of the theory of evolution that fishes developed into reptiles, reptiles into birds, and birds into beasts; but this is as wrong as it could be. Whatever the genealogy of the beasts may be, they certainly were not evolved from birds, and are in many respects not above them but below them. These are two independent branches of the tree of living forms, as the Greeks and Romans were branches of the stock of Japheth. The beasts may stand for the conquering Romans if you like, but the birds are the Greeks, and have advanced far beyond them in all emotional and artistic sensibility. They worship in the temple of music and beauty. And, like ourselves, they have found no subject so worthy of the highest efforts of art as their own dress. But the clothing of the body must conform more or less to the figure, and so, for a field in which invention and fancy may sport untrammelled, a lady turns to her hat and a bird to its tail. And by both, with equal heroism, every consideration of mere comfort, convenience, health, or safety is swept aside in obedience to the higher aim. Is this only a flippant jocularly, or is there here in very truth some profound law of the mind revealing itself in spheres seemingly so disconnected?

Look at a peacock. Its train, by the way, is a false tail, like the chignon of twenty years ago, or the fringe of the present day; the true tail is under it, and serves no purpose but to support it. Now the peacock lives on the ground, among scrub and brushwood, haunted by jackals and wild cats. They, like soldiers in khaki, reconnoitre him in a uniform expressly designed to elude the eye, but he flaunts a flag resplendent with green and gold. And when his one chance of life lies in springing nimbly from the ground and committing himself to his strong wings, he must lift and carry this ponderous paraphernalia with him. And the terrible Bonelli's eagle is soaring above. But all is risked proudly for the sake of the morning hour in the glade where the ladies assemble. And the peacock is only one of many. Not to mention the lyre bird, the Argus pheasant, the bird of paradise, and other splendid examples, there are common dicky-birds which point the moral and adorn the tail as emphatically.

If the tail is a rudder, where should you look to find it in its most simple and efficient form but among the flycatchers, which make their living by aerial acrobatics after flies? Yet this family seems to be peculiarly prone to the vanity of a stylish tail. The paradise flycatcher flutters two streamers a foot long, like white ribbons, behind it. The fantail could hide behind its own fan. The bee-eater has the two central feathers prolonged and pointed. The drongos, which are flycatchers in habit, wear their tails very long and deeply forked; and one of them, the racket-tailed drongo, has the two side feathers extended beyond the rest for nearly a foot, and as thin as wires, expanding into a blade at the ends. I have seen nothing in ladies' hats more preposterous. It is vain to object that there can be no proper comparison between tails and hats because the woman chooses her own hat while the bird has to wear what Nature has given it. I know that, but the contention is utterly superficial. What choice has a woman as to the style of her hat? Fashion prescribes for her, and Nature for the birds; that is all the difference. No doubt she acquiesces when theoretically

she might rebel. The bird cannot rebel, but does it not acquiesce? Does a lyre bird submit to its tail--wear it under protest, so to speak? Believe me, every bird that has an aesthetic tail knows the fact, and tries to live up to it. We may push the argument even further, for the motmot of Brazil is not content with a ready-made tail, but actually strips the web off the two long side feathers with its own beak, except a little patch at the end, so as to get the pattern which Nature, if one must use the phrase, gave to the racket-tailed drongo. A specimen is exhibited in the hall of the South Kensington Museum.

[Illustration: A BLACKBIRD AND A STARLING--THE ONE LIFTS ITS SKIRTS, WHILE THE OTHER WEARS A WALKING DRESS.]

In this connection I may also say that the shape or colour of a tail is not everything. An observant eye may find much to note in the wearing of them. There is a stylish way of carrying a tail and a slovenly way, and there are coquettish arts for the display of recherche tails. A blackbird and a starling are both tidy birds, and both walk much on the ground, but the one lifts its skirts, while the other, more practical and less fashionable, wears a walking dress and saves itself trouble.

This line of observation leads to a higher, and reveals the most important purpose that tails have served in the economy of beast, bird, and reptile, and, perhaps, even cold-blooded fish. Before the godlike countenance of man appeared on the earth, with its contractile forehead and erectile eyebrows, the answering light of the eye, the expansive nostrils, and subtilely mobile lips; before that the tail was the prime vehicle of emotion and safety-valve of passion. It is a great truth, too often buried in these days under rubbish of materialistic theories, that some way of self-manifestation is a supreme necessity of all sentient life. From the hot centre of thought and feeling the currents rush along the nervous ways and pervade the whole frame, seeking an outlet. But many passages are barred by duty, or fear, or eager purpose. A strong gust of passion may burst all barriers and force its way out at every point, but gentle currents flow along the lines of least resistance and find the idle tail. I do not know a better illustration of this than a cat watching a mouse. The ears are pricked forward, the eyes are fixed on the unsuspecting victim, every muscle of the legs is tense, like a bent bow ready to speed the arrow on its way. But see, the excitement with which the whole body is charged cannot be wholly restrained, and oozes out at the point of the tail.

[Illustration: AT THE SIGHT OF A RIVAL THE DOG HOLDS ITS TAIL UP STIFFLY]

Every emotion and passion takes this course. The happy kid wags its tail as it runs to its mother, the donkey when it has executed a successful bray, and the dog when it sees its master. At the sight of a rival the dog holds its tail up stiffly, unless, indeed, the rival is a bigger dog than itself, in which case the index goes down quickly between the legs. An elated horse elevates its tail, and so does a duck in the same mood. A lizard preparing to fight another lizard

Swinges the scaly horror of his folded tail,

and the raging lion of fiction lashes its sides with the same nervous instrument.

It would be tedious to dwell on the pretty part which the tail plays in the courtships of sparrows and pigeons, or on the sprightly attitudes by which birds of all sorts let off their spirits when shower and sunshine

have overfilled their hearts with gladness. But birds twitch their tails constantly, without meaning anything by it. The ceaseless wagging of a wagtail is a mere habit of cheerfulness, like the twirling of her thumbs by an idle Scotswoman. The long tail is there and something must be done with it. Look at the embarrassment which a nervous young man shows about the disposal of his hands; how he thrusts them into his trouser pockets, hangs them by their thumbs from the arm-holes of his waistcoat, or gives them a walking-stick to play with. I like to imagine what such a fellow would do with a long tail if he had it--how he would wind it round each leg in turn, rub up his back hair, and describe figures on the floor. But no animal so self-conscious as man could bear up long under the nervous strain of having to think continually of its tail. It would die young and the race would become extinct. Perhaps it did.

A final word on the conclusion of the whole matter, for these reflections have a moral. As habit becomes character, so expression hardens into feature. The tail of a sheep grows downwards, but that of a goat upwards, and this is the only infallible outward mark of distinction between the two animals. But it is the permanent record of a long history. The sheep was never anything but sheepish; the goat and its forefathers were pert as kids and insolent when their beards grew. It is useless to inquire why insolence should express itself by an upturned tail until someone can advance a reason why it should express itself in another way.

For proof of the fact you need go no farther than your own dogs. The ancestral wolf, or jackal, hunting and fighting, fearing and hoping, showed every changing mood by the pose of its tail; but a change came when it acquired an assured position of security and importance as the chosen companion of man, so dreaded by all its kith and kin. The tail went up at once and stayed there; when it could go no higher, it curled over. But promotion breeds conceit only in base natures. The greyhound is a gentleman, respectful and self-respecting, and it shows that by the very carriage of its tail. Only a snob at heart, petted and pampered for many generations, could have produced that perfect incarnation of smug self-satisfaction, the pug. Let us take the lesson home. The thoughts on which we let our minds dwell, and the sentiments that we harbour in our hearts, are the chisels with which we are carving out our faces and those of our children's children.

IV

NOSES

Some may think that I have chosen a trivial subject, and they will look for frivolous treatment of it. I can only hope that they will be disappointed. There is nothing that the progress of science has taught us more emphatically than this--that we must call nothing insignificant. Seemingly trivial pursuits have led to discoveries which have benefited all mankind, and priceless truths have been dug out of the most unpromising mines. I am not insinuating that anyone's nose is an unpromising mine, but I say that I am persuaded there is wisdom hidden in that organ for him who will observingly distil it out.

[Illustration: A SHREW CAN DO IT, BUT NOT A MAN.]

It possesses a peculiar and mystical significance not shared by any

other feature. This is abundantly proved by common speech, which is one of the most trustworthy of all kinds of evidence. For example, we speak of a person turning up his nose at a good offer. The phrase is absurd, for the power of turning up his nose is one which no human being ever possessed. A shrew can do it, but not a man. Yet the meaning of the saying needs no interpretation. Akin to it is the classical phrase, *_adunco suspendere naso_*. What Horace means scarcely requires explanation, but no commentator has successfully explained it. These expressions well illustrate the mystery that enshrouds our most salient feature. They show that, while everybody can see that disdain is expressed through the nose, nobody can define how it is done. Then there is that curious expression "put his nose out of joint," which is quite inexplicable, the nose being destitute of joint. There are many other phrases and also gestures which point in the same direction, but need not be cited, being for the most part vulgar. Allusions to the nose have a tendency to be vulgar, which is another mystery inciting us to investigate it. So let us proceed.

The first thing required by the principles of scientific procedure is a definition. What is a nose? But this proves to be a much more difficult question than anyone would suspect before he tried to answer it. The individual human nose we can recognise, describe or sketch more easily than any other feature, but try to define the thing *_nose_* in Nature and it is a most elusive phenomenon. When we speak of a man being led by the nose we imply that it is a part of him which is prominent and situated in front, when we speak of keeping one's nose above water we refer to it as the breathing orifice, but when we say that this or that offends our nose we are regarding it as the seat of the sense of smell. I believe that all these three ideas must be included in any definition. It should follow that insects, which breathe through holes in their sides, cannot have noses, and this is the truth.

Fishes, too, though they may have snouts, have not noses, because they breathe by gills. In truth, it seems that the nose was a very late and high acquisition, almost the finishing touch of the perfected animal form. And incidentally this leads us to notice what a great step was taken in evolution when the breathing holes were brought up to the region of the mouth. For the sense of taste is necessarily situated in the mouth, and the sense of smell is in close alliance with it. The mouth tastes food dissolved in the saliva during the process of mastication, and the primary use of the sense of smell is to detect and analyse beforehand the small particles given off by food and floating in the atmosphere.

A good many years ago, when the late Sally chimpanzee was the darling of the Zoological Gardens in Regent's Park, I watched her eating dates. She was an epicure, and always peeled each date delicately with her preposterous lips before eating it, and during the process she would apply the date to her nose every second to test its quality or enjoy its aroma. The action was indescribably comical, but what would it have been if her nostrils had been situated among her ribs? Imagine a mantis, for example, as he chews up a fly, lifting one of his wings and applying it to his flanks to see if it smells gamey. That is where some naturalists believe that the sense of smell is situated in insects. Others, however, think, with reason, that it is in the antennae or mouth. Nobody knows; the senses of the lower animals seem to be stuck about all parts of the body.

But, even if the sense of smell is at the mouth, how limited must its usefulness be when it can only deal with substances that are held to it! A new era dawned when the passages by which the breath of life

unceasingly comes and goes were transferred to the region of the mouth also. The nerves of smell quickly spread themselves over the lining membrane of those passages and became warders of the gate, challenging every waft of air that entered the body and examining what it carried. Thenceforth this region comprising the mouth, nostrils and surrounding parts holds a new and high place in the economy of the body, for the headquarters of the intelligence department are located there, and all the faculties of the brain converge on that point. Of course, the eyes and ears claim a share, but they are not far off.

Now it is being recognised more and more clearly by medical and physiological science that when the mind is much directed to any part of the body it exercises an influence in some way not understood on the flow of blood to that part to a degree which may seriously affect its functions and even its growth. When a person is suffering from any nervous affection, from heart disease, or even from weakness of the eyes, it is of the utmost importance to keep him from knowing it if possible, for if he knows it he will think about it, and that will inevitably aggravate it. This principle is well recognised in systems of physical culture. And surely it is impossible that so much intelligence should pass through that one sensitive region of the body which we are considering without affecting its growth and structure. Every muscle in it becomes quick to respond to various sensations in different ways, till the very recollection of those sensations will excite the same response.

Nay, we may go further. The mental emotions excited by those sensations will be expressed in the same way. For example, the sense of smell is peculiarly effective in exciting disgust. Anything which does violence to the sense of hearing exasperates, but does not disgust. If a man practises the accordion all day in the next room you do not loathe him, you only want to kill him. But anything that stinks excites pure disgust. Here you have the key to the fact that disgust and all feelings akin to it, disdain, contempt and scorn, express themselves through the nose. Darwin says that when we think of anything base or vile in a man's character the expression of the face is the same "as if we smelled a bad smell." This is an example of the temporary expression of a passing emotion, and there are many others like it. But each of us has his prevailing and dominant emotions which constitute the habitual attitude of his mind. And by the habitual indulgence of any emotion the features will become habituated to the expression of it, and so the set of our features comes at last to express our prevailing and dominant emotions; in other words, our character.

[Illustration: THE NOSTRILS OF THE APTERYX ARE AT THE TIP OF ITS BEAK.]

But let us return to the evolution of the nose. In these days of universal "Nature study" nobody need be told that the practice of breathing through the nostrils was introduced by the amphibians and reptiles. The former (frogs and toads) take to it only when they come of age, but lizards, snakes and all other reptiles do it from infancy. But the nose is not yet. That is something too delicate to come out of a cold-blooded snout covered with hard scales. Birds, too, by having their mouth parts encased in a horny bill seem to be debarred from wearing noses. And yet there is one primeval fowl, most ancient of all the feathered families, which has come near it. I mean the apteryx, that eccentric, wingless recluse which hides itself in the scrub jungles of New Zealand. Its nostrils, unlike those of every other bird, are at the tip of its beak, which is swollen and sensitive; and Dr. Buller says that as it wanders about in the night it makes a continual sniffing and softly taps the walls of its cage with the point of its bill. But the

apteryx is one of those odd geniuses which come into the world too soon, and perish ineffectual. Its kindred are all extinct, and so will it be ere long.

[Illustration: A BOLD ATTEMPT TO GROW IN THE CASE OF A TAPIR]

When we come to the beasts we find the right conditions at last for the growth of the nose. Take the horse for an example of the average beast without idiosyncrasy. Its profile is nearly a straight line from the crown to the nostrils, beyond which it slopes downwards to the lips. The skin of this part is soft and smooth, without hair, and the horse dearly loves to have it fondled. The sense of touch is evidently uppermost. At this stage there was what to the eye of fancy looks like a bold attempt to grow a nose in the case of a tapir, but it miscarried. These hoofed beasts are all very hard up for something in the way of a hand to bring their food to their mouths. The camel employs its lips and the cow its tongue; the muntjoe or barking deer of India has attained a tongue of such length that it uses it for a handkerchief to wipe its eyes. So the tapir could not resist the temptation to misapply its nose to the purpose of gathering fodder, and the ultimate result was the elephant, whose nose is a wonderful hand and a bucket and other things. The pig, being a swine, debased its nose in a worse way, making a grubbing tool of it.

There has been another attempt to misuse and pervert this part of the face which I scarcely dare to touch upon, for it is so utterly fantastic and mystical that I fear the charge of heresy if I give words to my thoughts. It occurs among bats, a tribe of obscure creatures about which common knowledge amounts to this, that they fly about after sunset, are uncanny, and fond of getting entangled in the hair of ladies, and should be killed. But there are certain families of bats, named horseshoe bats, leaf-nosed bats and vampires about which common knowledge is _nil_, and the knowledge possessed by naturalists very little, so I will tell what I know of them. They are larger than common bats, their wings are broad, soft and silent, like those of the owl, they sleep in caves, tombs and ruins, they do not flutter in the open air, but swiftly traverse gloomy avenues and shady glades, their prey is not gnats and midges, but the "droning beetle," the death's head moth, the cockchafer, croaking frogs, sleeping birds and _human blood_. The books will tell you that these bats are distinguished by "complicated nasal appendages consisting of foliaceous skin processes around the nostrils," which is quite true and utterly futile. It may do for a dried skin or a specimen in spirits of wine. I have had the foul fiend in a cage and looked him in the face. His whole countenance, from lips to brow and from cheek to cheek, is covered and hidden by a hideous design of

Spells and signs,
Symbolic letters, circles, lines,

sculptured in living, quivering skin. It is a sight to make the flesh creep. The books suggest that these foliaceous appendages are the organs of some special sense akin to touch. Futile again! There are things in Nature still which prompt the naturalist who has not atrophied his inner eye and starved his imagination to cry out:

Science ...
Why preyest thou thus upon the poet's heart,
Vulture, whose wings are dull realities?

Supposing there should be in the unseen universe an evil spirit, an imp of malice and mischief, not Milton's Satan, but the Deil of Burns:

Whyles ranging, like a roaring lion,
For prey, a' holes an' corners tryin;
Whyles on the strong-winged tempest flyin,
Tirlin the kirks;
Whyles in the human bosom pryin,

and supposing him to crave possession of a body through which he might get into touch with this material world and express himself in outward forms and motions; then oh! how fitly were this bat explained.

But let us go back to firm ground. If you compare a dog's profile with that of a horse you will note at once that the nostrils are in advance of the lips, and have a kind of portal to themselves. This is a distinct advance. The sense of smell has come to the front and pushed aside the lower sense of touch. You will observe, too, that with the growth of the brain the brain-pan has elevated itself above the level of the nose. Through the cat to the monkeys the process proceeds, the forehead advancing, the jaws retreating, and the nostrils leaving the lips, until they finally settle in a detached villa midway between the eyes and the mouth. This is the nose. I do not know the use of it. I cannot fathom the meaning of it. It is a solemn mystery. See the face of an orang-outang. It is a _countenance_, a signboard with three distinct lines of writing on it, the eyes, the nose and the mouth. You may not think much of this particular nose. Neither do I. I think it is situated rather too near the eyes and too far from the mouth. It is a little too small also, and wants style. But you must not judge a first attempt too critically. I have seen human noses of a pattern not unlike this, but they are not considered aristocratic: perhaps they indicate a reversion to the ancestral type.

[Illustration: I HAVE SEEN HUMAN NOSES OF A PATTERN NOT UNLIKE THIS, BUT THEY ARE NOT CONSIDERED ARISTOCRATIC.]

But the noses even of monkeys are not all like this. In fact, there is a good deal of variety, and two in particular have struck me as quite remarkable. One is that of the long-nosed monkey (_Semnopithecus nasalis_). I think it must have suggested Sterne's stranger on a mule, who had travelled to the promontory of noses and threw all Strassburg into a ferment. I have often contemplated this nose in mute wonderment, and longed to see that monkey in life, if so be I might arrive at some understanding of it; for the taxidermist cannot rise above his own level, and the man who would mount _S. nasalis_ would need to be a Henry Irving. Then there is the sub-nosed monkey, labelled _rhinopithecus_, of which there is an expressive specimen at the South Kensington Museum. Who can consider that nose seriously and continue to believe in a recipe made up of struggle for existence, adaptation to environment, and natural selection _quantum suf_? If I could dine with that monkey, ask it to drink a glass of wine with me, offer it a pinch of snuff and so on, I might come in time to feel, if not to comprehend, the import of its nose.

[Illustration: THE LONG-NOSED MONKEY.]

[Illustration: WHO CAN CONSIDER THAT NOSE SERIOUSLY?]

But one step further is required for the evolution of what we may call the human nose, and that is a solid foundation, a ridge of bone connecting it with the brow and separating the eyes from each other. I believe that the completeness of this is a fair index of the comparative advancement of different races of men. In the Greek ideal of a perfect

face the profile forms a straight line from the top of the forehead to the tip of the nose. This is the type of face which painters have delighted to give to the Virgin Mary; and, when looking at their Madonnas, one cannot help wondering whether they forgot that Mary was a Jewess. According to the Hebrew ideal, a perfect nose was like "the tower of Lebanon which looketh toward Damascus" (Song of Solomon, vii. 4); but not even the ruins of that tower remain to help us to-day. The Romans, no doubt, accepted the ideal of the Greeks aesthetically, but their destiny had given them a very different nose, and they ruled the world.

Here is the nose of Julius Caesar as a coin has preserved it for us. I think that the outline is too straight for a typical Roman, but the deep dip under the brow and the downward point are characteristic. Now compare the nose of another race which rules an empire greater than that of the Caesars. Here is John Bull as Punch usually represents him. It belongs to the same genus as that of the Roman. The reason why this should be the nose of command is not easy to give with scientific precision, for we are dealing with the play of very subtle influences, so the man without imagination will no doubt scoff. But I will take shelter under Darwin. Dealing with the expression of pride he says, "A proud man exhibits his sense of superiority by holding his head and body erect. He is haughty (haut), or high, and makes himself appear as large as possible." Again, "The arrogant man looks down on others"; and yet again, "In some photographs of patients affected by a monomania of pride, sent me by Dr. Crichton-Browne, the head and body were held erect and the mouth firmly closed. This latter action, expressive of decision, follows, I presume, from the proud man feeling perfect self-confidence in himself."

Darwin says nothing about the nose, but I believe that, by physiological sympathy, it cannot but take part in the habitual downward look upon inferior beings. Darwin goes on to say that, "The whole expression of pride stands in direct antithesis to that of humility"; from which it follows, if my philosophy is sound, that the nose of Uriah Heep was turned upwards.

Of course, many emotions may share in the moulding of a nose, and the whole subject is too intricate and vast to be treated briefly. I have only given a few examples to illustrate my argument, and my conclusion is that the key to the peculiar significance and personal quality of the nose is to be found in its immobility. The eyes and lips are incessantly in motion, we can twitch and wrinkle the cheeks and forehead, and muscles to move the ears are there, though most men have lost control of them. But the nose stands out like some bold promontory on a level coast, or like the Sphinx in the Egyptian desert, with an ancient history, no doubt, and a mystery perhaps, but without response to any appeal. And for this very reason it is an index, not to that which is transient in the man, but to that which is permanent. He may knit his brows to seem thoughtful and profound, or compress his lips to persuade his friends and himself that he has a strong will, but he can play no trick with his nose. There it stands, an incorruptible witness, testifying to what he is, and not only to what he is, but to the rock whence he was hewn and to the pit whence he was digged. For his nose is a bequest from his ancestors, an entailed estate which he cannot alienate.

EARS

Men and women have ears, and so have jugs and pitchers. In the latter case they are useful: jugs and pitchers are lifted by them. And what is useful is fit, and fitness is the first condition of beauty. But human ears are put to no use, except sometimes when naughty little boys are lifted by them in the way of discipline; and I can see no beauty in them. It is only because they are so common that we do not notice how ridiculous they are. In the days of Charles I. men sometimes had their ears cut off for holding wrong opinions, which would have made them famous and popular in these enlightened days, but at that time it made all right-thinking people despise them, so the fashion of going without ears did not spread among us. If it had, then how differently we should all think of the matter now! If we were all accustomed to neat, round heads at drawing-rooms, levees and balls, how repulsive it would be to see a well-dressed man with two ridiculous, wrinkled appendages sticking out from the sides of his face!

In saying this I am not drawing on my fancy, but on my memory. I can recollect the time when no gentleman, still less any lady, would have owned a terrier with its ears on. And why go back so far? The same sentiment is prevalent in good society with respect to men's beards in this year of grace and smooth faces. Yet, if one chance to be looking at a Rembrandt instead of at society, what an infinitely handsomer adjunct to a noble face is a fine beard than a pair of ears!

When woman first looked at her face in a polished saucepan, she was at once struck with the comicality of those things, and bethought herself what to do with them. She decided to use them for pegs to hang ornaments on. The improvement excited the admiration of her husband and the envy of her rivals to such a degree that all other women of taste in her tribe did the same, and from that day to this, in almost every country in the world, it has been accounted a shame for any respectable woman to show her face in public in the hideousness of naked ears. This discovery of its capabilities gave a new value to the ear, and a large, roomy one became an asset in the marriage market. I have seen a pretty little damsel of Sind with fourteen jingling silver things hanging at regular intervals from the outside edge of each ear. If Nature had been niggardly, the lobe at least could be enlarged by boring it and thrusting in a small wooden peg, then a larger one, and so on until it could hold an ivory wheel as large as a quoit, and hung down to the shoulders.

But Nature surely did not intend the ear for this purpose. Then what did she intend? A popular error is that the ears are given to hear with, but the ears cannot hear. The hearing is done by a box of assorted instruments (_malleus, incus, stapes_, etc.) hidden in a burrow which has its entrance inside of the ear. If you argue that the ears are intended to catch sounds and direct them down to the hearing instrument, then explain their absurd shape. They are useless. A man who wants to hear distinctly puts his hand to his ear. And why do they not turn to meet the sounds that come from different quarters? They are absolutely immovable, and therefore also expressionless. A savage expresses his mind with all the rest of his face; he smiles and grins and pouts and frowns, but his ears stand like gravestones with the inscriptions effaced. How different is the case when you turn from man to the "irrational" animals! The eyes of a fawn are lustrous and beautiful, but they would be as meaningless as polished stones without the eloquent ears that stand behind them and tell her thoughts. Curiosity, suspicion,

alarm, anger, submission, friendliness, every emotion that flits across her quick, sensitive mind speaks through them. They are in touch with her soul, and half the music of her life is played on them. And if you abstract yourself from individuals and look at that thing, the ear, in the wide field of life, what a great, living reality it is!--a spiritual unity under infinite diversity of material form and fashion. It is like the telegraph wire overhead, the commonest and plainest of material things, but charged with the silent and invisible currents of the life of the world.

"Let my heart be still a moment and this mystery explore."

[Illustration: OR PERHAPS WHEN IT WANTS TO LISTEN IT RAISES A FLIPPER TO ITS EAR.]

Birds have no ears, nor have crocodiles, nor frogs, nor snakes. Ears seem to be for beasts only. And not for all beasts. Seals are divided by naturalists into two great families--those with ears, and those without. The common seal belongs to the latter class, and the sea-lion to the former. A common seal lives in the sea, and when it does wriggle up on the beach of an iceberg there is nothing to hear, I suppose, or perhaps when it wants to listen it raises a flipper to its ear. I never saw one doing so, but we do not see everything that happens in the world. The sea-lion, with its stouter limbs, can lift its forepart, raise its head and look about it, and even flop about the ice-fields at a respectable rate. And there is no doubt that one of these is as much above an earless seal as fifty years of Europe are better than a cycle of Cathay. When performing seals are exhibited at a circus sitting on chairs, catching balls on the points of their noses and playing diablo with them, or balancing billiard cues on their snouts, and doing other miraculous things, they are always sea-lions, not common seals. Of course, I do not mean to insinuate that sea-lions invented the ear and stuck it on: that would be unscientific; but I mean that their general intelligence and interest in affairs created that demand for more distinct hearing which led to the development of an ear trumpet. This view is wholly scientific, though pedants may quarrel with my way of putting it.

The sea-lion's ears are very minute, mere apologies one might think; but don't be hasty. The finny prey of the sea-lion makes no sound as it skims through the water; and perhaps the padded foot of that stealthy garrotter, the Polar bear, makes as little on the smooth ice; for catching the one and not being caught by the other the sea-lion must trust to the keenness of its great goggle eyes. But it is a social beast, and it wants to catch the bellowing of its fellows far across the foggy waste of ice-floes; and that little leather scoop standing behind the ear-hole seems to be just the instrument required to catch and send down those sounds which would otherwise glance off the glossy fur and never find entrance to the tiny orifice at all. If it were any larger than is absolutely necessary it would be a serious impediment to a professional diver and swimmer like the sea-lion. This is the reason why otters have very small ears, and why whales and porpoises have none at all.

But when a beast lives on land the conditions are all altered, and then the ear blossoms out into an infinite variety of forms and sizes, from each of which the true naturalist may divine the manner of life of its wearer as surely as the palmist tells your past, present and future from the lines on your hand. First, he will divide all beasts into those that pursue and those that flee, oppressors and oppressed. The former point their ears forwards, but the latter backwards. There may be a good deal

of free play in both cases, but I am thinking of the habitual position. When a cat is making its felonious way along the garden wall, wrapped in thoughts of blackbirds and thrushes, its ears look straight forwards, and this is the way in which a cat's portrait is always taken, because it is characteristic. It cannot turn them round to catch sounds from behind, and would scorn to do so; when accosted from behind, it turns its head and looks danger in the face. It can fold them down backwards when the danger is a terrier and the decks are cleared for action, but that is another story. Contrast Brer Rabbit as he comes "lopin' up de big road," His ears are turning every way scouting for danger, not always in unison, but independently; but when he is at rest they are set to alarm from the flank and rear.

[Illustration: "TEAR OUT THE HOUSE LIKE THE DOGS WUZ ATTER HIM."]

But when he "tear out the house like the dogs wuz atter him," then they point straight back. He was made to be eaten, and he knows it. So it is with the whole tribe of deer, and even with the horse, pampered and cared for and unacquainted with danger; his ears are a weathercock registering the drift of all his petty hopes and fears. I see the left ear go forward and prepare for a desperate shy at that wheelbarrow. He knows a wheelbarrow familiarly--there is one in his stall all day--but I am taking him a road he does not want to go, and so the hypocrite is going to pretend that barrow is of a dangerous sort. I prepare to apply a counter-irritant: he sees it with the corner of his eye, and both ears turn back like a tuning-fork.

The size and quality of the ear serve to show how far the owner depends on it. You will never begin to understand Nature until you see clearly that every life is dominated by two supreme anxieties which push aside all other concerns--viz., to eat, and not to be eaten. The one is uppermost in those that pursue, and the other in those that flee. Now if the pursuer fails he loses a dinner, but if the fugitive fails he loses his life, from which it follows that the very best sort of ears will be found among those beasts that do not ravage but run.

But there is another matter to be taken into account. The ears are not the whole of the beast's outfit. It has eyes, and it has a nose. Which of the three it most relies on depends upon the manner of its life. A bird lives in trees or the air, looking down at the prowling cat or up at the hawk hovering in the clear sky; so it does not keep ears, and its nose is of no account. But what four-footed thing can see like a bird? The squirrel also lives in the trees, and its ears are frivolously decorated with tufts of hair. You will not find many beasts that can afford to prostitute their ears to ornamental purposes. The only other beast that I can think of at this moment which has tufted ears is the lynx. Now the lynx is a tree cat, and there is proverbial wisdom in the saying "Eyes like a lynx."

[Illustration: A GREAT CATHOLIC CONGRESS OF DISTINGUISHED EARS.]

But go to the timid beasts that spend their lives on the ground among grass and brushwood and woods and coppices, where murderous foes are prowling unseen, and you will see ears indeed--expansive, tremulous, turning lightly on well-oiled pivots, and catching, like large sea-shells, the mingled murmur of rustling leaves and snapping twigs and chirping insects and falling seeds, and the slight, occasional, abrupt, fateful sound which is none of these. It is impossible, no doubt, for us ever to think ourselves into the life which these beasts live--moving, thinking and sleeping in a circumambient atmosphere of never-ceasing sound; sitting, as it were, at the receiving station of a system of

wireless telegraphy, and catching cross-currents of floating intelligence from all quarters, mostly undiscernible by us if we listened for it, but which they, by long practice, instantly locate and interpret without conscious effort.

The zoologist classifies them under many heads. The field mouse and rabbits are rodentia, the deer ungulata, the kangaroos marsupialia. In my museum they are all one family, and their labels are their ears. In these days of international conferences, parliaments of religion, pan-everything-in-turn councils, might we not arrange for a great catholic congress of distinguished ears? What a glow of new life it would shed upon our straitened, traditional ways of thinking about the social problems of our humble fellow-creatures! I would exclude the eared owls, whose ears are a mere sport of fashion, like the hideous imitations of birds' wings which ladies stick on their hats.

But just when this peep into the rare show of Nature is lifting my soul into sublimity, I am brought down to the base earth again by an exception. This is the plague of all high science. You design a stately theory, collect from many quarters a wealth of facts to establish it with, and have arranged them with cumulative and irresistible force, when some disgusting, uninvited case thrusts itself in on your notice and refuses to fit into your argument at all. In this instance it is "my lord the elephant." That he has no need to concern himself about any bloodthirsty beast that may be lurking in the jungle is not more obvious than that his ears are the biggest in the world. Now there are two ways of getting rid of an obstruction of this kind. One is to betake yourself to your thinking chair and pipe and to rake up the possibilities of the Pleiocene and Meiocene ages, and prove that when the immense ear of the elephant was evolved there must have been some carnivorous monster, some sabre-toothed tiger or cave bear, which preyed on elephants.

The other way is to get acquainted with the elephant, cultivate an intimacy with him, and find out what his ears are to him. I prefer the second way. I would patiently watch him as he stands drowsily under an umbrageous banyan tree on a sultry day before the monsoon has burst and refreshed earth and air. So might I note that his ears are incessantly moving, but not turning this way and that to catch sounds--just flapping, flapping, as if to cool his great temples. So have I seen the gigantic fruit bats, called flying foxes in India, hanging in hundreds in the upper branches of a tall peepul tree at noon, feeling too hot to sleep, and all fanning themselves in unison with one wing--a comic spectacle. And at each flap of the elephant's ears I would observe that a cloud of flies (for the elephant is not too great to be pestered by the despicable hordes of beggars for blood) were dislodged from their feeding grounds about his head and neck, and, trying to settle about his rear parts, were driven back again by the swinging of his tail. Then I should say that ear is just a fan. How significant it is that among the emblems of royalty in the East the three chiefest are an umbrella-bearer, two men who stand behind and swing great punkahs modelled on the elephant's ear, and two others carrying yak's tails wherewith to scare the flies from the royal person! The elephant is a rajah!

There is another mysterious ear which is a stumbling-block to the simple theory-monger. It is in fashion among a tribe of bats to which belongs the so-called vampire of India. This monster is fond of coming into your bedroom at midnight through the open windows, but not to suck your blood, for it has little in common with the true vampire of South America. It brings its dinner with it and hangs from the ceiling, "feeding like horses when you hear them feed." You hear its jaws

working--crunch, crunch, crunch, but feel too drowsy to get up and expel it.

When you get up in the morning there on your clean dressing table, just below the place where it hung, are the bloody remains of a sparrow, or the crumbs of a tree-frog. The servants will tell you that the sparrow was killed and eaten by a rat, but if you rise softly next night when you hear the sound of feeding, and shut the windows, you will find a goblin hanging from the ceiling in the morning, hideous beyond the power of words to tell. Its ears, thin, membranous and longer than its head, tremble incessantly. Inside of them is another pair, much smaller than the first, and tuned to their octave, I should guess, while two membranous smelling trumpets of similar pattern rise over the nose. What is the meaning of these repulsive instruments, and how does that strange beast catch sparrows? When it comes out after dark and quarters the garden, passing swiftly under and through the branches of trees, they are sound asleep hidden among the leaves, motionless and silent. But their flesh may be scented, and their gentle breathing heard if you have instruments sufficiently delicate. Then the ample wings may suddenly enfold the sleeping body, and the savage jaws grip the startled head before there is time even to scream. Without a doubt this is the secret of the vampire bat's ears.

But to find food and flee death are not the only interests in life even to the meanest creature. There are social pleasures, family affections and fellowship, sympathy and co-operation in the struggles of life. And there is love.

Omne adeo genus in terris hominumque ferarumque,
Et genus aequoreum, pecudes, pictaeque volucres,
In furias ignemque ruunt: amor omnibus idem.

The chirping of the cricket, the song of the lark, the call of the sentinel crane, the watchword with which the migratory geese keep their squadrons together, the howling of jackals, the lowing of cows, the hum of the hive, the chatter of the drawing-room, and a hundred other voices in forest and field and town remind us that the voice and the ear are the pair of wheels on which society runs.

And this thought points the way out of another contradictory puzzle, that which confronts my argument from the ears of an ass. It roams treeless deserts where no foe can approach unseen. Thistles make no sound. Why should it be adorned with ears which in their amplitude are scarcely surpassed by those of the rabbit and the hare. There is no answer unless their function is to hear the bray of a fellow-ass.... One may object that that majestic sound is surely of force to impress itself without any aid from an external ear; but that is a vain argument built on the costermonger's moke--dreary exile from its fatherland. Remember that its ancestors wandered on the steppes of Central Asia or the borders of the Sahara. In those boundless solitudes, with nothing that eye can see or that common ear can hear to remind her that she is not the sole inhabitant of the universe, the wild ass "snuffeth up the wind in her desire," and lifting her windsails to the hot blast, hears, borne across miles of white sand and shimmering mirage, the joyful reverberations of that music which tells of old comrades and boon companions scouring the plain and kicking up their exultant heels.

Monkeys taking to trees were like the birds, they scarcely needed ears. And so by the high road of evolution you arrive at man and the enigma of his ear. It is a shrunken and shrivelled remnant, a moss-grown ruin, a derelict ship. It is to a pattern ear what the old shoe which you find

in a country lane, shed from the foot of some "unemployed," is to one of Waukenphast's "five-miles-an-hour-easy" boots. We ought to temper our contempt for what it is with respect for what it was. All the parts of it are there and recognisable, even to the muscles that should move it, but we have lost control of them. I believe anyone could regain that by persevering exercise of his will power for a time--that is, if he has any. I have a friend who, if you treat him with disrespect, shrivels you up with a sarcastic wag of his right ear.

The ears of dogs open up another vista for the questioning philosopher. Their day is past, too, and man may cut them short to match his own, but the dog grows them longer than before. When he first took service with man, and grew careless and lazy, the muscles got slack and the ears dropped, which is in accordance with Nature. Then, instead of being allowed to wither away, they have been handed over to the milliner and shaped and trimmed in harmony with the "style" of each breed of dogs. How it has been done is one of those mysteries which will not open to the iron keys of Darwin, But there it is for those to see who have eyes.

[Illustration: THE CURLS OF A MOTHER'S DARLING.]

The ears of the little dogs bred for ladies' laps are the curls of a mother's darling; the pendant love-locks of the old, old maid who, despite of changeful fashions, clings to those memorials of the pensive beauty of her youth, are repeated in solemn mimicry by the dachshund trotting at her heels; but the sensible fur cap of the dignified Newfoundland reminds us of the cold regions from which his forefathers came. Some kinds of terriers still have their ears starched up to look perky, and I have occasionally seen a dog with one ear up and the other down as if straining after the elusive idea expressed in the Baden-Powell hat. All which shows that "one touch of nature makes the whole world kin."

VI

TOMMY

THE STORY OF AN OWL

Among the many and various strangers within my gates who have helped to enliven the days of my exile, Tommy was one towards whom I still feel a certain sense of obligation because he taught me for the first time what an owl is. For Tommy was an owl. From any dictionary you may ascertain that an owl is a nocturnal, carnivorous bird, of a short, stout form, with downy feathers and a large head; and if that does not satisfy you, there is no lack of books which will furnish fuller and more precise descriptions.

But descriptions cannot impart acquaintance. I had sought acquaintance and had gained some knowledge such as books cannot supply, not only of owls in general, but of that particular species of owls to which Tommy belonged, who, in the heraldry of ornithology, was *_Carine brahma_*, an Indian spotted owlet. This branch of the ancient family of owls has always been eccentric. It does not mope and to the moon complain. It flouts the moon and the sun and everyone who passes by, showing its round face at its door and even coming out, at odd times of the day, to stare and bob and play the clown. It does not cry "Tuwhoo, Tuwhoo," as

the poets would have it, but laughs, jabbers, squeaks and chants clamorous duets with its spouse.

All this I knew. I had also gathered from his public appearances that a spotted owlet is happy in his domestic life and that he is fond of fat white ants, for, when their winged swarms were flying, I had seen him making short flights from his perch in a tree and catching them with his feet; and I believed that he fed in secret on mice and lizards. But all that did not amount to understanding an owl, as I discovered when Tommy became a member of our chummery.

Tommy was born in "the second city of the British Empire," to wit, Bombay, in the month of March, 1901. His birthplace was a hole in an old "Coral" tree. Domestic life in that hole was not conducted with regularity. Meals were at uncertain hours and uncertain also in their quantity and quality. The parents were hunters and were absent for long periods, and though there was incredible shouting and laughter when they returned, they came at such irregular times that we did not suspect that they were permanent residents and had a family. One night, however, Tommy, being precocious and, as we discovered afterwards, keen on seeing life, took advantage of parental absence to clamber to the entrance of the nursery and, losing his balance, toppled over into the garden. He kept cool, however, and tried to conceal himself, but Hurree the malee, watering the plants early in the morning, spied him lying with his face on the earth and brought him to us.

He seemed dead, but he was very much alive, as appeared when he was made to sit up and turned those wonderful eyes of his upon us. He was a droll little object at that time, nearly globular in form and covered with down, like a toy for children to play with. His head turned like a revolving lighthouse and flared those eyes upon you wherever you went, great luminous orbs, black-centred and gold-ringed and full of silent wonder, or, I should rather say, surprise. This never left him. To the last everything that presented itself to his gaze, though he had seen it a hundred times, seemed to fill him with fresh surprise. Nothing ever became familiar. What an enviable cast of mind! It must make the brightness of childhood perennial.

There was some discussion as to how Tommy should be fed, and we finally decided that one should try to open the small hooked beak, whose point could just be detected protruding from a nest of fluff, while another held a piece of raw meat ready to pop in. It did not look an easy job, but we had scarcely set about it when Tommy himself solved the difficulty by plucking the meat out of our fingers and swallowing it. This early intimation that, however absent he might look, he was "all there" was never belied, and there was no further difficulty about the feeding of him. When he saw us coming he always fell into the same ridiculous attitude, with his face in the dust, but we just picked him up and stood him on his proper end and showed him the meat and his bashfulness vanished at once.

After sunset he would get lively and begin calling for his mother in a strange husky voice. At this time we would let him out in the garden, watching him closely, for, if he thought he was alone, he would sneak away slyly, then make a run for liberty, hobbling along at a good rate with the aid of his wings, though he never attempted to fly as yet. When detected and overtaken, he fell on his face as before. One memorable day he found a hole in a stone wall and, before we could stop him, he was in. The hole was too small to admit a hand, though not a rat or a snake, so the prospect was gloomy. Suddenly a happy inspiration came to me. That sad, husky cry with which he expressed his need of a mother was not

difficult to mimic, and he might be cheated into thinking that a lost brother or sister was looking for him. I retired and made the attempt, and, hark! a faint echo came from the wall. At each repetition it became clearer, until the round face and great eyes appeared at the mouth of the hole. Then the round body tumbled out, and little Tommy was hobbling about, looking, with pathetic eagerness, for "the old familiar faces." When he discovered how he had been betrayed, his face went down and he suffered himself to be carried quietly to the canary's cage in which he was kept.

It seemed to be time now to begin Tommy's education, for I judged that, if he had been at home, he would ere then have been getting nightly lessons in the poacher's art. So I procured a small gecko, one of those grey house lizards, with pellets at the ends of their toes, which come down from the roof after the lamps are lit and gorge themselves on the foolish moths and plant bugs that come to the light. Securing it with a thin cord tied round its waist, I introduced it into Tommy's cage. He looked surprised, very much surprised. He raised himself to his full height. He gazed at it. He curtsied. He gave a little jump and was standing with both feet on the lizard. A moment more and the lizard was gliding down his throat with my thin cord after it. Mr. Seton Thompson would have us believe that all young things are laboriously trained by their parents, just like human children, and if he was an eye-witness of all the scenes that he describes so vividly, it must be so with other young things. But he did not know Tommy, who is the bird of Minerva and evidently sprang into being, like his patron goddess, with all his armour on.

After a time, when he had exchanged his infant down for a suit of feathers, he was promoted to a large cage out in the garden, and his regular diet was a little raw meat or a mutton bone tied to one of his perches, but, by way of a treat, I would offer him, whenever I could get it, a locust, or large grasshopper. His way of accepting this was unique and pretty. He would look surprised, stare, curtsy once or twice, stare again and then, suddenly, noiselessly and as lightly as a fairy, flit across the cage and, without alighting, pluck the insect from my fingers with both his feet and return to his perch.

Why he bowed to his food and to everybody and everything that presented itself before him was a riddle that I never solved. A materialistic friend suggested that he was adjusting the focus of his wonderful eyes, and the action was certainly like that of an optician examining a lens; but I feel that there was something more ceremonial about it. This punctiliousness cost him his dinner once. I was curious to know what he would do with a mouse, so, having caught one alive, I slipped it quietly into his cage. He was more surprised than ever before, raised himself erect, bowed to the earth once, twice and three times, stared, bowed again and so on until, to his evident astonishment and chagrin, the mouse found an opening and was gone. The lesson was not lost. A few days later I got another mouse, to which he began to do obeisance as before, but very soon and suddenly, though as softly as falling snow, he plumped upon it with both feet and, spreading his wings on the ground, looked all round him with infinite satisfaction. The mouse squeaked, but he stopped that by cracking its skull quietly with his beak. Then he gathered himself up and flew to the perch with his prize.

One thing I noted about Tommy most emphatically. He never showed a sign of affection, or what is called attachment. He maintained a strictly bowing acquaintance with me. He was not afraid, but he would suffer no familiarity. He would come and eat, with due ceremony, out of my hand, but if I offered to touch him he was surprised and affronted and went

off at once. When I moved to another house I found that I could not continue to keep him, so I sent him to the zoological garden, where I visited him sometimes, but he never vouchsafed a token of recognition. His heart was locked except to his own kin.

But since that time, when I have seen an owl, even a barn owl, or a great horned owl, swiftly cross the sky in the darkness of night, I have felt that I could accompany it, in imagination, on its secret quest. It will arrive silently, like the angel of death, in a tree overlooking a field in which a rat, whose hour has come, is furtively feeding, all alert and tremulous, but unaware of any impending danger. The rat will go on feeding, unconscious of the mocking curtsey and the baleful eyes that follow with mute attention its every motion, until the hand of the clock has moved to the point assigned by fate, and then it will feel eight sharp talons plunged into its flesh. I have seen the fierce dash of the sparrow hawk into a crowd of unsuspecting sparrows, I know the triumph of the falcon as it rises for the final, fatal swoop on the flying duck, and I have watched the kestrel, high in air, scanning the field for some rash mouse or lizard that has wandered too far from shelter. The owl is also a bird of prey, but its idea is different from all these.

VII

THE BARN OWL

A FRIEND OF MAN

A thunderstorm has burst on the common rat. Its complicity in the spread of the plague, which has been proved up to the hilt, has filled the cup of its iniquities to overflowing, and we have awakened to the fact that it is and always has been an arch-enemy of mankind. Simultaneously, in widely separated parts of the world, a "pogrom" has been proclaimed, and the accounts of the massacre which come to us from great cities like Calcutta and Bombay are appalling and almost incredible. They would move to pity the most callous heart, if pity could be associated with the rat. But it cannot.

The wild rat deserves that humane consideration to which all our natural fellow-creatures on this earth are entitled; but the domestic rat (I use this term advisedly, for though man has not domesticated it, it has thoroughly domesticated itself) cannot justify its existence. It is a fungus of civilisation. If it confined itself to its natural food, the farmer's grain, the tax which it levies on the country would still be such as no free people ought to endure. But it confines itself to nothing. As Waterton says: "After dining on carrion in the filthiest sink, it will often manage to sup on the choicest dainties of the larder, where like Celoeno of old *_vestigia foeda relinquit_*." It kills chickens, plunders the nests of little birds, devouring mother, eggs and young, murders and feeds on its brothers and sisters and even its own offspring, and not infrequently tastes even man when it finds him asleep. The bite of a rat is sometimes very poisonous, and I have had to give three months' sick leave to a clerk who had been bitten by one. Add to this that the rat multiplies at a rate which is simply criminal, rearing a family of perhaps a dozen every two or three months, and no further argument is needed to justify the war which has been declared against it. Every engine of war will, no doubt, be brought into use,

traps of many kinds, poisons, cats, the professional rat-catcher, and a rat bacillus which, if once it gets a footing, is expected to originate a fearful epidemic.

But I need not linger any more among rats, which are not my subject. I am writing in the hope that this may be an opportune time to put in a plea for a much persecuted native of this and many other countries, whose principal function in the economy of nature is to kill rats and mice. The barn, or screech, owl, which is found over a great part of Europe and Asia and also in America, was once very common in Britain, inhabiting every "ivy-mantled tower," church steeple, barn loft, hollow tree, or dovecot, in which it could get a lodging. But it was never welcome. Like the Jews in the days of King John it has been relentlessly persecuted by superstition, ignorance and avarice. Avarice, instigated by ladies and milliners, has looked with covetous eye on its downy and beautiful plumes; while ignorance and superstition have feared and hated the owl in all countries and all ages. In ancient Rome it was a bird of evil omen.

Foedaque fit volucris venturi nuncia luctus,
Ignavus bubo, dirum mortalibus omen.

In India, to-day, if an owl sits on the house-top, the occupants dare scarcely lie down to sleep, for they know that the devil is walking the rooms and marking someone for death. Lady Macbeth, when about the murder of Duncan, starts and whispers,

Hark! Peace! It was the owl that shrieked,
The fatal bellman.

And even as late as the nineteenth century, Waterton's aged housekeeper "knew full well what sorrow it had brought into other houses when she was a young woman," Witches, like modern ladies of fashion, set great value on its wings. The latter stick them on their hats, the witches in Macbeth threw them into their boiling cauldron. Horace's Canidia could not complete her recipe without

"Plumamque nocturnae strigis."

We may suppose that in Britain these superstitions are gone for ever, killed and buried by board schools and compulsory education. If they are (there is room for an _if_) they have been succeeded by a worse, the superstition of gamekeepers and farmers. It is worse in effect, because these men have guns, which their predecessors had not. And it is more wicked, because it is founded on an ignorance for which there is no excuse. How little harm the barn owl is likely to do game may be inferred from the fact that, when it makes its lodging in a dovecot, the pigeons suffer no concern! Waterton (and no better authority could be quoted) scouts the idea, common among farmers, that its business there is to eat the pigeons' eggs. "They lay the saddle," he says, "on the wrong horse. They ought to put it on the rat." His predecessor in the estate had allowed the owls to be destroyed and the rats to multiply, and there were few young pigeons in the dovecot. Waterton took strong measures to exterminate the rats, but built breeding places for the owls, and the dovecot, which they constantly frequented, became prolific again.

But granting that the owls did twice the injury to game with which they are credited, it would be repaid many times over by their services. Waterton well says that, if we knew its utility in thinning the country of mice, it would be with us what the ibis was with the Egyptians--a

sacred bird. He examined the pellets ejected by a pair of owls that occupied a ruined gateway on the estate. Every pellet contained skeletons of from four to seven mice. Owls, it may be necessary to explain, swallow their food without separating flesh from bone, skin and hair, and afterwards disgorge the indigestible portions rolled up into little balls. In sixteen months the pair of owls above-mentioned had accumulated a deposit of more than a bushel of these pellets, each a funeral urn of from four to seven mice! In the old Portuguese fort of Bassein in Western India I noticed that the earth at the foot of a ruined tower was plentifully mixed with small skulls, jaws and other bones. Taking home a handful and examining them, I found that they were the remains of rats, mice and muskrats.

The owl kills small birds, large insects, frogs and even fishes, but these are extras: its profession is rat-catching and mousing, and only those who have a very intimate personal acquaintance with it know how peculiarly its equipment and methods are adapted to this work. The falcon gives open chase to the wild duck, keeping above it if possible until near enough for a last spurt; then it comes down at a speed which is terrific, and, striking the duck from above, dashes it to the ground. The sparrow hawk plunges unexpectedly into a group of little birds and nips up one with a long outstretched foot before they have time to get clear of each other. The harrier skims over field, copse and meadow, suddenly rounding corners and topping fences and surprising small birds, or mice, on which it drops before they have recovered from their surprise.

The owl does none of these things. For one thing, it hunts in the night, when its sight is keenest and rats are abroad feeding. Its flight is almost noiseless and yet marvellously light and rapid when it pleases. Sailing over field, lane and hedgerow and examining the ground as it goes, it finds a likely place and takes a post of observation on a fence perhaps, or a sheaf of corn. Here it sits, bolt upright, all eyes. It sees a rat emerge from the grass and advance slowly, as it feeds, into open ground. There is no hurry, for the doom of that rat is already fixed. So the owl just sits and watches till the right moment has arrived; then it flits swiftly, softly, silently, across the intervening space and drops like a flake of snow. Without warning, or suspicion of danger, the rat feels eight sharp claws buried in its flesh. It protests with frantic squeals, but these are stopped with a nip that crunches its skull, and the owl is away with it to the old tower, where the hungry children are calling, with weird, impatient hisses, for something to eat.

The owl does not hunt the fields and hedgerows only. It goes to all places where rats or mice may be, reconnoitres farmyards, barns and dwelling houses and boldly enters open windows. Sometimes it hovers in the air, like a kestrel, scanning the ground below. And though its regular hunting hours are from dusk till dawn, it has been seen at work as late as nine or ten on a bright summer morning. But the vulgar boys of bird society are fond of mobbing it when it appears abroad by day, and it dislikes publicity.

The barn owl lays its eggs in the places which it inhabits. There is usually a thick bed of pellets on the floor, and it considers no other nest needful. The eggs are said to be laid in pairs. There may be two, four, or six, of different eggs, in the nest, and perhaps a young one, or two, at the same time. Eggs are found from April, or even March, till June or July, and there is, sometimes at any rate, a second brood as late as November or December. This owl does not hoot, but screeches. A weird and ghostly voice it is, from which, according to Ovid, the bird

has its Latin name, Strix (pronounced "Streex," probably, at that time).

Est illis strigibus nomen, sed nominis hujus.
Causa, quod horrenda stridere nocte silent.

It is a sound which, coming suddenly out of the darkness, might well start fears and forebodings in the dark and guilty mind of untutored man, which would not be dispelled by a nearer view of the strange object from which they proceeded. White, ghostly, upright, spindle-shaped and biggest at the top, where two great orbs flare, like fiery bull's-eyes, from the centres of two round white targets, it stands solemn and speechless; you approach nearer and it falls into fearsome pantomimic attitudes and grimaces, like a clown trying to frighten a child. And now a new horror has been added to the barn owl. The numerous letters which appeared in *The Times* and were summarised, with comments, by Sir T. Digby Pigott, C.B., in *The Contemporary Review* of July 1908, leave no reasonable room for doubt that this bird sometimes becomes brightly luminous, and is the will-o'-the-wisp for believing in which we are deriding our forefathers. All things considered, I cannot withhold my sympathy and some respect for the superstition of aged housekeepers, Romans and Indians. For that of gamekeepers and farmers I have neither. All our new schemes of "Nature study" will surely deserve the reproach of futility if, in the next generation, every farmhouse in England has not its own Owl Tower for the encouragement of this friend of man.

VIII

DOMESTIC ANIMALS

Long before Jubal became the father of all such as handle the harp and the organ and Tubalcain the instructor of every artificer in brass and iron, Abel was a keeper of sheep, but the sacred writer has not informed us how he first caught them and tamed them. If we consult other records of the infancy of the human race, they reveal as little. When the Egyptians began to portray their daily life on stone 6,000 or 7,000 years ago, they already had cattle and sheep, geese and ducks and dogs and plenty of asses, though not horses. They got these from the Assyrians, who had used them in their chariots long before they began to record anything.

Further back than this we have no one to question except those shadowy men of the Stone Age who have left us heaps of their implements, but none of their bones. They were not so careful of the bones of horses, which lie in thousands about the precincts of their untidy villages, but not a scrawl on a bit of a mammoth tusk has been found to indicate whether these were ridden and driven, or only hunted and eaten.

Why should it be recorded that Cadmus invented letters? Why should we inquire who first made gunpowder and glass? Why should every schoolboy be taught that Watt was the inventor of the steam engine? Can any of these be put in the scale, as benefactors of our race, with the man who first trained a horse to carry him on its back, or drew milk with his hands from the udders of a cow? The familiarity of the thing has made us callous to the wonder of it. Let us put it before us, like a painting or a statue, and have a good look at it.

There is a farmhouse, any common farmhouse, just one of the molecules

that constitute the mass of our wholesome country life. A horse is being harnessed for the plough: its ancestors sniffed the wind on the steppes of Tartary. Meek cows are standing to be milked: when primitive man first knew them in their native forests he used to give them a wide berth, for his flint arrows fell harmless off their tough hides, and they were fierce exceedingly. A cock is crowing on the fence as if the whole farm belonged to himself: he ought to be skulking in an Indian jungle. The sheep have no business here; their place is on the rocky mountains of Asia. As for the dog, it is difficult to assign it a country, for it owns no wild kindred in any part of the world, but it ought at least to be worrying the sheep. If there is an ass, it is a native of Abyssinia, and the Turkeys are Americans. The cat derives its descent from an Egyptian.

But all these are of one country now and of one religion. They know no home nor desire any, except the farmhouse, in which they were born and bred, and the lord of it is their lord, to whom they look for food and protection. And what would he do without them? What should we do without them? It is impossible to conceive that life could be carried on if we were deprived of these obedient and uncomplaining servants. High civilisation has been attained without steam engines; education, as we use the term now, is superfluous--Runjeet Singh, the Lion of the Punjab, could neither read nor write; the human race has prospered and multiplied without the knowledge of iron; but we know of no time when man did without domestic animals.

It is vain to speculate how the thing first came about, whether the sportive anthropoid ape took to riding on a wild goat before he emerged as a man keeping flocks, or whether some great pioneer, destined to be worshipped in after ages as a demigod, showed his fellows how the wild calves, if taken young, might be trained into tractable slaves; and it is hopeless to expect that any record will now leap to light which will give us knowledge in place of speculation. But it might not be unprofitable to seek for some clue to the strange selection which the domesticating genius of man has made from among the multifarious material presented to it by the animal kingdom. If we do so we shall almost be forced to the conclusion that domesticability is a character, or quality, inherent in some animals and entirely wanting in others.

Let us begin with pigeons, a very large group, but one that shows more unity than any of the other Orders into which naturalists divide birds. It embraces turtle doves of many species, wood pigeons, ground pigeons, fruit pigeons and some strange forms like the great crowned pigeon of Victoria. Of all these only one, the common blue rock, has been domesticated. The ring dove of Asia has been kept as a cage bird for so long that a permanent albino and also a fawn-coloured variety have been established and are more common in aviaries than birds of the natural colour; but the ring dove has not become a domestic fowl, and never will. In this instance there is a plausible explanation, for the blue rock, unlike the rest of the tribe, nests and roosts in holes and is also gregarious; therefore, if provided with accommodation of the kind it requires, it will form a permanent settlement and remain with us on the same terms as the honey bee; while the ring dove, not caring for a fixed home, must be confined, however tame it may become, or it will wander and be lost.

But this explanation will not fit other cases. What a multitude of wild ducks there are in Scotland and every other country, mallards, pintails, gadwalls, widgeons, pochards and teals, all very much alike in their habits and tastes! But of them all only one species, and that a migratory one, the mallard, has been persuaded to abandon its wandering

ways and settle down to a life of ease and obesity as a dependant of man. In India there is a duck of the same genus as the mallard, known as the spotted-billed duck (*Anas poecilorhynchus*), which is as large as the mallard and quite as tasty, and is, moreover, not migratory, but remains and breeds in the country. But it has not been domesticated: the tame ducks in India, as here, are all mallards. The muscovy duck is a distinct species which has been domesticated elsewhere and introduced.

From the ducks let us turn to the hens. The partridge, grouse and pheasant are all dainty birds, but if we desire to eat them we must shoot them, or (*proh pudor!*) snare them. Plover's eggs are worth four shillings a dozen, but we must seek them on the moors. The birds that have covenanted to accept our food and protection and lay their eggs for our use and rear their young for us to kill are descended from *Gallus bankivus*, the jungle fowl of Eastern India. How they came here history records not: perhaps the gipsies brought them. They appear now in strange and diverse guise, the ponderous and feather-legged Cochinchina, the clean-limbed and wiry game, the crested Houdan, the Minorca with its monstrous comb, and the puny bantam. In Japan there is a breed that carries a tail seven or eight feet in length, which has to be "done" regularly like a lady's hair, to keep it from dirt and damage.

But however their outward aspects may differ, they are of the same blood and know it. A featherweight bantam cock will stand up to an elephantine brahma and fight him according to the rules of the ring and next minute pay compliments to his lady in language which she will be at no loss to understand. And if the artificial conditions of their life were removed, they would soon all lapse alike to the image of the stock from which they are sprung. This is well illustrated in a show case in the South Kensington Museum exhibiting a group of fowls from Pitcairn's Island. These are descended from some stock landed by the mutinous crew of H.M.S. *Bounty* in 1790, which ran wild, and in a century they have gone back to the small size and lithe figure and almost to the game colour of the wild birds from which they branched off before history dawned.

If we turn next to the Ruminants, the clean beasts which chew the cud and divide the hoof, the puzzle becomes harder still. Deer and antelopes are often kept as pets, and become so tame that they are allowed to wander at liberty. In Egypt herds of gazelles were so kept before the days of Cheops. In India I have known a black buck which regularly attended the station cricket ground, moving among the nervous players with its nose in the air and insolence in its gait, fully aware that eighteen-inch horns with very sharp points insured respectful treatment. Mr. Sterndale trained a Nilgai to go in harness. The great bovine antelopes of Africa would become as tame, and there is no reason to suppose that their beef and milk would not be as good as those of the cow. But no antelope or deer appears ever to have been domesticated, with the exception of the reindeer.

Of the other ruminants the ox, buffalo, yak, goat, sheep and a few others are domestic animals, while the bison and the gaur, or so-called Indian bison, and a large number of wild goats and sheep have been neglected. The buffalo and yak have probably come under the yoke in comparatively recent times, for they are little changed; but the goat and still more the sheep have undergone a wonderful transformation within and without. Who could recognise in a Leicester ewe the wary denizen of precipitous mountains which will not feed until it has set a sentinel to give warning if danger approaches? And here is a curious fact which has scarcely been noticed by naturalists.

The original of our goat is supposed to be the Persian ibex. At any rate, it was an ibex of some species, as its horns plainly show. But on the plains of Northern India, under ranges of hills on which the Persian ibex wanders wild, the common domestic goat is a very different animal from that of Europe, and has peculiar spiral horns of the same pattern as the markhor, another grand species of wild goat which draws eager hunters to the higher reaches of the same mountains. From this it would appear that two species of wild goat have been domesticated and kept to some extent distinct, one eventually finding its way westward, but not eastward and southward.

The Indian humped cattle also differ so widely in form, structure and voice from those of Europe that there can scarcely be a doubt of their descent from distinct species. But both have entirely disappeared as wild animals, unless indeed the white cattle of Chillingham are really descendants of Caesar's dreadful urus and not merely domestic cattle lapsed into savagery. So have the camel, and, with a similar possible exception, the horse. Was the whole race in each of these cases subjugated, or exterminated, and that by uncivilised man with his primitive weapons? There is no analogy here with the extinction of such animals as the mammoth, for the ox is a beast in every way fitted to live and thrive in the present condition of this world, as much so as the buffalo and the Indian bison, which show no sign of approaching extinction. Our fathers easily got rid of the difficulty by assuming that Noah never released these species after the Flood, but what shall those do who cannot believe in the literality of Noah's ark?

As for the dog, its domestication has been the creation of a new species. The material was perhaps the wolf, more likely the jackal, but possibly a blend of more than one species. But a dog is now a dog and neither a wolf nor a jackal. A mastiff, a pug, a collie, a greyhound, a pariah all recognise each other and observe the same rules of etiquette when they meet.

We must admit, however, that, whatever pliability of disposition, or other inherent suitability, led to the first domestication of certain species of animals, the changes induced in their natures by many generations of domesticity have made them amenable to man's control to a degree which puts a wide difference between them and their wild relations. A wild ass, though brought up from its birth in a stable, would make a very intractable costermonger's mule. We may infer from this that the first subjugation of each of our common domestic animals was the achievement of some genius, or of some tribe favourably situated, and that they spread from that centre by sale or barter, rather than that they were separately domesticated in many places. This would partly explain why a few species of widely different families are so universally kept in all countries to the exclusion of hundreds of species nearly allied and apparently as suitable. When a want could be supplied by obtaining from another country an animal bred to live with man and serve him, the long and difficult task of softening down the wild instincts of a beast taken from the forests or the hills and acclimatising its constitution to a domestic life was not likely to be attempted.

But there have been a few recent additions to our list of domestic animals. The turkey and the guinea fowl are examples, and perhaps within another generation we may be able to add the zebra. And there may be many other animals fitted to enrich and adorn human life which would make no insuperable resistance to domestication if wisely and patiently handled. Here is a noble opening for carrying out in its kindest sense the command, "Multiply, and replenish the earth, and subdue it: and have

dominion over the fish of the sea, and over the fowl of the air, and over every living thing that moveth upon the face of the earth."

IX

SNAKES

I have met persons, otherwise quite sane, who told me that they would like to visit India if it were not for the _snakes_. Now there is something very depressing in the thought that this state of mind is extant in England, for it is calculated, on occasion, to have results of a most melancholy nature. By way of example, let us picture the case of a broken-hearted maiden forced to reject an ardent lover because duty calls him to a land where there are snakes. Think of his happiness blighted for ever and her doomed to a "perpetual maidenhood," harrowed with remorseful dreams of the hourly perils and horrors through which he must be passing without her, and dreading to enter an academy or picture-gallery lest a laocoon or a fury might revive apprehensions too horrible to be borne. In view of possibilities so dreadful, surely it is a duty that a man owes to his kind to disseminate the truth, if he can, about the present condition in the East of that reptile which, crawling on its belly and eating dust and having its head bruised by the descendants of Eve, sometimes pays off her share of the curse on their heels. Here the truth is.

Within the limits of our Indian Empire, including Burmah and Ceylon, there are at present known to naturalists two hundred and sixty-four species of snakes. Twenty-seven of these are sea-serpents, which never leave the sea, and could not if they would. The remaining two hundred and thirty-seven species comprise samples of every size and pattern of limbless reptile found on this globe, from the gigantic python, which crushes a jackal and swallows it whole, to the little burrowing _Typhlops_, whose proportions are those of an earthworm and its food white ants.

If you have made up your mind never to touch a snake or go nearer to one than you can help, then I need scarcely tell you what you know already, that these are all alike hideous and repulsive in their aspect, being smeared from head to tail with a viscous and venomous slime, which, as your Shakespeare will tell you, leaves a trail even on fig-leaves when they have occasion to pass over such. This preparation would appear to line them inside as well as out, for there is no lack of ancient and modern testimony to the fact that they "slaver" their prey all over before swallowing it, that it may slide the more easily down their ghastly throats. Their eye is cruel and stony, and possesses a peculiar property known as "fascination," which places their victims entirely at their mercy. They have also the power of coiling themselves up like a watch-spring and discharging themselves from a considerable distance at those whom they have doomed to death--a fact which is attested by such passages in the poets as--

Like adder darting from his coil,

and by travellers _passim_.

This is the true faith with respect to all serpents, and if you are resolved to remain steadfast in it, you may do so even in India, for it

is possible to live in that country for months, I might almost say years, without ever getting a sight of a live snake except in the basket of a snake-charmer. If, however, you are minded to cultivate an acquaintance with them, it is not difficult to find opportunities of doing so, but I must warn you that it will be with jeopardy to your faith, for the very first thing that will strike you about them will probably be their cleanness. What has become of the classical slime I cannot tell, but it is a fact that the skin of a modern snake is always delightfully dry and clean, and as smooth to the touch as velvet.

The next thing that attracts attention is their beauty, not so much the beauty of their colours as of their forms. With few exceptions, snakes are the most graceful of living things. Every position into which they put themselves, and every motion of their perfectly proportioned forms, is artistic. The effect of this is enhanced by their gentleness and the softness of their movements.

But if you want to see them properly, you must be careful not to frighten them, for there is no creature more timid at heart than a snake. One will sometimes let you get quite near to it and watch it, simply because it does not notice you, being rather deaf and very shortsighted, but when it does discover your presence, its one thought is to slip away quietly and hide itself. It is on account of this extreme timidity that we see them so seldom.

Of the two hundred and thirty-seven kinds that I have referred to, some are, of course, very rare, or only found in particular parts of the country, but at least forty or fifty of them occur everywhere, and some are as plentiful as crows. Yet they keep themselves out of our way so successfully that it is quite a rare event to meet with one. Occasionally one finds its way into a house in quest of frogs, lizards, musk-rats, or some other of the numerous malefactors that use our dwellings as cities of refuge from the avenger, and it is discovered by the Hamal behind a cupboard, or under a carpet. He does the one thing which it occurs to a native to do in any emergency--viz. raises an alarm. Then there is a general hubbub, servants rush together with the longest sticks they can find, the children are hurried away to a place of safety, the master appears on the scene, armed with his gun, and the

Wee, sleekit, cowrin', tim'rous beastie,

trying to slip away from the fuss which it dislikes so much, is headed, and blown, or battered, to pieces. Then its head is pounded to a jelly, for the servants are agreed that, if this precaution is omitted, it will revive during the night and come and coil itself on the chest of its murderer.

Finally a council is held and a unanimous resolution recorded that deceased was a serpent of the deadliest kind. This is not a lie, for they believe it; but in the great majority of cases it is an untruth. Of our two hundred and thirty-seven kinds of snakes only forty-four are ranked by naturalists as venomous, and many of these are quite incapable of killing any animal as large as a man. Others are very rare or local. In short, we may reckon the poisonous snakes with which we have any practical concern at four kinds, and the chance of a snake found in the house belonging to one of these kinds stands at less than one in ten.

It is a sufficiently terrible thought, however, that there are even four kinds of reptiles going silently about the land whose bite is certain death. If they knew their powers and were maliciously disposed, our life in the East would be like Christian's progress through the Valley of the

Shadow of Death. But the poisonous snakes are just as timid as the rest, and as little inclined to act on the offensive against any living creature except the little animals on which they prey. Even a trodden worm will turn, and a snake has as much spirit as a worm. If a man treads on it, it will turn and bite him. But it has no desire to be trodden on. It does its best to avoid that mischance, and, I need scarcely say, so does a man unless he is drunk. When both parties are sincerely anxious to avoid a collision, a collision is not at all likely to occur, and the fact is that, of all forms of death to which we are exposed in India, death by snake-bite is about the one which we have least reason to apprehend.

During a pretty long residence in India I have heard of only one instance of an Englishman being killed by a snake. It was in Manipur, and I read of it in the newspapers. During the same time I have heard of only one death by lightning and one by falling into the fermenting vat of a brewery, so I suppose these accidents are equally uncommon. Eating oysters is much more fatal: I have heard of at least four or five deaths from that cause.

The natives are far more exposed to danger from snakes than we are, because they go barefoot, by night as well as day, through fields and along narrow, overgrown footpaths about their villages. The tread of a barefooted man does not make noise enough to warn a snake to get out of his way, and if he treads on one, there is nothing between its fangs and his skin. Again, the huts of the natives, being made of wattle and daub and thatched with straw, offer to snakes just the kind of shelter that they like, and the wonder is that naked men, sleeping on the ground in such places, and poking about dark corners, among their stores of fuel and other chattels, meet with so few accidents. It says a great deal for the mild and inoffensive nature of the snake. Still, the total number of deaths by snake-bite reported every year is very large, and looks absolutely appalling if you do not think of dividing it among three hundred millions. Treated in that way it shrivels up at once, and when compared with the results of other causes of death, looks quite insignificant.

The natives themselves are so far from regarding the serpent tribe with our feelings that the deadliest of them all has been canonised and is treated with all the respect due to a sub-deity. No Brahmin, or religious-minded man of any respectable caste, will have a cobra killed on any account. If one takes to haunting his premises, he will propitiate it with offerings of silk and look for good luck from its patronage.

About snakes other than the cobra the average native concerns himself so little that he does not know one from another by sight. They are all classed together as _janwar_, a word which answers exactly to the "venomous beast" of Acts xxviii. 4; and though they are aware that some are deadly and some are not, any particular snake that a _sahib_ has had the honour to kill is one of the deadliest as a matter of course. I have never met a native who knew that a venomous snake could be distinguished by its fangs, except a few doctors and educated men who have imbibed western science. In fact they do not think of the venom as a material substance situated in the mouth. It is an effluence from the entire animal, which may be projected at a man in various ways, by biting him, or spitting at him, or giving him a flick with the tail.

The Government of India spends a large sum of money every year in rewards for the destruction of snakes. This is one of those sacrifices to sentiment which every prudent government offers. The sentiment to

which respect is paid in this case is of course British, not Indian. Indian sentiment is propitiated by not levying any tax on dogs, so the pariah cur, owned and disowned, in all stages of starvation, mange and disease, infests every town and village, lying in wait for the bacillus of rabies. Against the one fatal case of snake-bite mentioned above, I have known of at least half a dozen deaths among Englishmen from the more horrible scourge of hydrophobia. In the steamer which brought me home there were two private soldiers on their way to M. Pasteur, at the expense, of course, of the British Government.

X

THE INDIAN SNAKE-CHARMER

We must wait for another month or two before we can think of the winter in this country in the past tense, but in India the month of March is the beginning of the hot season, and the tourists who have been enjoying the pleasant side of Anglo-Indian life and assuring themselves that their exiled countrymen have not much to grumble at will now be making haste to flee.

During the month the various hotels of Bombay will be pretty familiar with the grey sun-hat, fortified with _puggaree_ and pendent flap, which is the sign of the globe-trotter in the East. And all the tribe of birds of prey who look upon him as their lawful spoil will recognise the sign from afar and gather about him as he sits in the balcony after breakfast, taking his last view of the gorgeous East, and perhaps (it is to be feared) seeking inspiration for a few matured reflections wherewith to bring the forthcoming book to an impressive close. The vendor of Delhi jewellery will be there and the Sind-work-box-walla, with his small, compressed white turban and spotless robes, and the Cashmere shawl merchant and many more, pressing on the gentleman's notice for the last time their most tempting wares and preparing for the long bout of fence which will decide at what point between "asking price" and "selling price" each article shall change ownership. The distance between these two points is wide and variable, depending upon the indications of wealth about the purchaser's person and the indications of innocence about his countenance.

And when the poor globe-trotter, who has long since spent more money than he ever meant to spend, and loaded himself with things which he could have got cheaper in London or New York, tries to shake off his tormentors by getting up and leaning over the balcony rails, the shrill voice of the snake-charmer will assail him from below, promising him, in a torrent of sonorous Hindustanee, variegated with pigeon English and illuminated with wild gesticulations, such a superfine _tamasha_ as it never was the fortune of the _sahib_ to witness before.

Tamasha is one of those Indian words, like _bundobust_, for which there is no equivalent in the English language, and which are at once so comprehensive and so expressive that, when once the use of them has been acquired, they become indispensable, so that they have gained a permanent place in the Anglo-Indian's vocabulary. It is not slang, but a good word of ancient origin. Hobson-Jobson quotes a curious Latin writer on the Empire of the Grand Mogul, who uses it with a definition appended, "ut spectet Thamasham, id est pugnas elephantorum, leonum, buffalorum et aliarura ferarum." "Show" comes nearest it in English, but

falls far short of it.

The _tamasha_ which the snake-charmer promises the _sahib_ will include serpent dances, a fight between a cobra and a mungoose, the inevitable mango tree, and other tricks of juggling. But to a stranger the snake-charmer himself is a better _tamasha_ than anything he can show. He is indeed a most extraordinary animal. His hair and beard are long and unkempt, his general aspect wild, his clothing a mixture of savagery and the wreckage of civilisation. He wears a turban, of course, and generally a large one; but it is put on without art, just wound about his head anyhow, and hanging lopsidedly over one ear. It and the loose cloth wrapped about the middle of him are as dirty as may be and truly Oriental, though erratic. But, besides these, he wears a jacket of coloured calico, or any other material, with one button fastened, probably on the wrong buttonhole, and under this, if the weather is cold, he may have a shirt seemingly obtained from some Indian representative of Moses & Co.

On his shoulder he carries a long bamboo, from the ends of which hang villainously shabby baskets, some flat and round, occupied by snakes, others large and oblong, filled with apparatus of jugglery. The members of his family, down to an unclothed, precocious imp of ten, accompany him, carrying similar baskets, or capacious wallets, or long, cylindrical drums, on which they play with their fingers. The dramatic effect of the whole is enhanced when one of them allows a huge python, a snake of the _Boa constrictor_ tribe, which kills its prey by crushing it, to wind its hideous, speckled coils round his body.

What the snake-charmer is by race or origin ethnologists may determine when they have done with the gipsy. He is not a Hindu. No particular part of the country acknowledges him as its native. He is to the great races, castes, and creeds of India what the waif is to the billows of the sea. His language, in public at least, is Hindustanee, but this is a sort of _lingua franca_, the common property of all the inhabitants of the country. His religion is probably one of the many forms of demon worship which grow rank on the fringes of Hinduism. He must be classed, no doubt, with the other wandering tribes which roam the country, camping under umbrellas, or something little better, each consecrated to some particular form of common crime, and each professing some not in itself dishonest occupation, like the tinkering of gipsies.

But the snake-charmer is the best known and most widely spread of them all. By occupation he is a professor of three occult sciences. First, he is a juggler, and in this art he has some skill. His masterpiece is the famous mango trick, which consists in making a miniature mango tree grow up in a few minutes, and even blossom and bear fruit, out of some bare spot which he has covered with his mysterious basket. It has been written about by travellers in extravagant terms of astonishment and admiration, but, as generally performed, is an extremely clumsy-looking trick, though it is undoubtedly difficult to guess how it is done. A more blood-curdling feat is to put the unclothed and precocious imp aforementioned under a large basket, and then run a sword savagely through and through every corner of it, and draw it out covered with gore. When the sickened spectators are about to lynch the murderer, the imp runs in smiling from the garden gate.

The connection between these performances and the man's second trade, namely, snake-charming, is not obvious to a Western mind; but it must be remembered that the snake-charmer is not a mere, vulgar juggler, amusing people with sleight-of-hand. His feats are miracles, performed with the assistance of superior powers. In short, he is a theosophist, only his

converse is not with excoorporated Mahatmas from Thibet, but with spirits of another grade, whose Superior has been known from very remote antiquity as an Old Serpent. In deference to this respectable connection the cobra holds a distinguished place even in orthodox Hinduism. So it is altogether fit that a performer of wonders should be on intimate terms with the serpent tribe. The snake-charmer keeps all sorts of them, but chiefly cobras. These he professes to charm from their holes by playing upon an instrument which may have some hereditary connection with the bagpipe, for it has an air-reservoir consisting of a large gourd, and it makes a most abominable noise. As soon as the cobra shows itself the charmer catches it by the tail with one hand, and, running the other swiftly along its body, grips it firmly just behind the jaws, so that it cannot turn and bite. Practice and coolness make this an easy feat. Then the poison fangs are pulled out with a pair of forceps and the cobra is quite harmless. It is kept in a round, flat basket, out of which, when the charmer removes the lid and begins to play, it raises its graceful head, and, expanding its hood, sways gently in response to the music.

Scientific men aver that a snake has no ears and cannot possibly hear the strains of the pipe, but that sort of science simply spoils a picturesque subject like the snake-charmer. So much is certain, that all snakes cannot be played upon in this way: there are some species which are utterly callous to the influences to which the cobra yields itself so readily. No missionary will find any difficulty in getting a snake-charmer to appreciate that Scripture text about the deaf adder which will not listen to the voice of the charmer, charm he never so wisely.

To these two occupations the snake-charmer adds that of a medicine man, for who should know the occult potencies of herbs and trees so well as he? So, as he wanders from village to village, he is welcomed as well as feared. But one wealthy tourist is worth more to him than a whole village of ryots, so he keeps his eye on every town in which he is likely to fall in with the travelling white man. And the travelling white man would be sorry to miss him, for he is one of the few relics of an ancient state of things which railways and telegraphs and the Educational Department have left unchanged.

The itinerant jeweller and the Sind-work-box-walla are unmistakably being left behind as the East hurries after the West, and we shall soon know them no more. Showy shops, where the inexperienced traveller may see all the products of Sind and Benares, and Cutch and Cashmere, spread before him at fixed prices, are multiplying rapidly and taking the bread from the mouth of the poor hawker. But the snake-charmer seems safe from that kind of competition. It is difficult to forecast a time when a broad signboard in Rampart Row will invite the passer-by to visit Mr. Nagshett's world-renowned Serpent Tamasha, Mongoose and Cobra Fight, Mango-tree Illusion, etc. Entrance, one rupee.

XI

CURES FOR SNAKE-BITE

In a little book on the snakes of India, published many years ago by Dr. Nicholson of the Madras Medical Service, the conviction was expressed that the snake-charmers of Burmah knew of some antidote to the poison of

the cobra which gave them confidence in handling it. He said that nothing would induce them to divulge it, but that he suspected it consisted in gradual inoculation with the venom itself. Putting the question to himself why he did not attempt to attest this by experiment, he replied that there were two reasons, which, if I recollect rightly, were, first, that he had a strong natural repugnance to anything like cruelty to animals, and, secondly, that he had observed that as soon as a man got the notion into his head that he had discovered a cure for snake-bite, he began to show symptoms of insanity.

It is rather remarkable that, after so many years, another Scottish doctor, not in Madras, but in Edinburgh, has proved, by just such experiments as Dr. Nicholson shrank from, that an "aged and previously sedate horse" may, by gradual inoculation with cobra poison, be rendered so thoroughly proof against it that a dose which would suffice to kill ten ordinary horses only imparts "increased vigour and liveliness" to it. Further, Dr. Fraser has found that the serum of the blood of an animal thus rendered proof against poison is itself an antidote capable of combating that poison after it has been at work for thirty minutes in the veins of a rabbit, and arresting its effects. And all this has been achieved without apparent detriment to the distinguished doctor's sanity.

This must be intensely interesting intelligence to Englishmen throughout India, and joyful intelligence too, for, scoff as we may at the danger of being bitten by a poisonous snake, nobody likes to think that, if such a thing _should_ happen to him (and very narrow escapes sometimes remind us that it may), there would be nothing for him to do but to lie down and die. And so, ever since the Honourable East India Company was chartered, the antidote to snake poison has been a sort of philosopher's stone, sought after by doctors and men of science along many lines of investigation. And every now and then somebody has risen up and announced that he has found it, and has had disciples for a season.

But one remedy after another, though it might give startling results in the laboratory, has proved to be useless in common life, and the majority of Englishmen have long since resigned themselves to the conclusion that there is no practical cure for the bite of a poisonous snake. For what avails it to carry about in your travelling bag a phial of strong ammonia and to live in more jeopardy of death by asphyxiation than you ever were by snakes, unless you have some guarantee that, when it is your fate to be bitten by a snake, the phial will be at hand? For ammonia must act on the venom before the venom has had time to act upon you, or it will only add another pain to your end; and that gives only a few minutes to go upon. So with nitric acid and every agent that operates by neutralising the poison and not by counteracting its effects. And this has been the character of all the remedies hitherto put forward. "They are," says Sir Joseph Fayrer, "absolutely without any specific effect on the condition produced by the poison."

But "anti-venene," as Dr. Fraser calls his immunised blood-serum, follows the poison into the system, even after the fatal symptoms have begun to show themselves, and arrests them at once. So the Anglo-Indian may throw away his ammonia phial and, arming himself with another of anti-venene and a hypodermic syringe, feel that he is safe against an accident which will never happen. As for the man who is not nervous, he will speak of the new antidote, and think of it as most interesting and valuable, and go on his way as before with no expectation of ever being bitten by a venomous snake. The medical man of every degree will order a supply as soon as it is to be had, and conscientiously try to stamp out the smouldering hope within him that somebody in the station will

soon be bitten by a cobra and give him a chance.

Among the dusky millions of India Dr. Fraser's discovery will create no "catholic ravishment" because they will not hear of it. And if they did hear of it they would regard his labours as misapplied and the result as superfluous. For the Hindu has never shared the Englishman's opinion that there is no cure for snake-bite. On the contrary, he is assured that there are not one or two but many specifics for the bite of every kind of snake, known to those whose business it is to know them. If they are not invariably efficacious, it is for the simple reason that if a man's time has come to die he will die. But if his time has not come to die they will not fail to cure him, and since no man can know when he is bitten whether his time has come or not, he will lay the odds against Fate by trying, not one or another of them, but as many as he can hear of or get. Some of them are drastic in their effects, and so it too often proves that the poor man's time has indeed come, for though he might survive the snake he succumbs to the cure.

It is many years now since the news was brought to me one day that a man whom I knew very well had been bitten by a deadly serpent and was dying. He was a fine, strongly built young fellow, a Mohammedan, in the employ of a Parsee liquor distiller, in whose godown he was arranging firewood when he was bitten in the foot. Without looking at the snake he rushed out and, falling on his face on the ground, implored the bystanders to take care of his wife and children as he was a dead man. The news spread and all the village ran together. The man was taken to an open room in his employer's premises and vigorous measures for his recovery were set on foot, in which his employer's family and servants, his own friends and as many of the general public as chose to look in, were allowed to take part.

First of all, some jungle men were called in, for the man of the jungle must naturally know more about snakes than other men. These were probably Katkurrees, an aboriginal race, who live by woodcutting, hunting and other sylvan occupations. They proved to be practical men and at once sucked the wound. An intelligent Havildar of the Customs Department, who chanced to be present, then lanced the wound slightly to let the blood flow, and tied the leg tightly in two places above it. This was admirable. If what the jungle men and the Havildar did were always and promptly done whenever a man is bitten by a snake, few such accidents would end fatally.

But this poor man's friends did not stop there. A supply of chickens had been procured with all haste, and these were scientifically applied. This is a remedy in which the natives have great faith, and I have known Europeans who were convinced of its efficacy. The manner of its application scarcely admits of description in these pages, but the effect is that the chickens absorb the poison and die, while the man lives. The number of chickens required is a gauge of the virulence of the serpent, for as soon as the venom is all extracted they cease to die. Nobody, however, could tell me how many chickens perished in this case. They were all too busy to stop and note the result of one remedy while another remained untried. And there were many yet.

Somebody suggested that the venom should be dislodged from the patient's stomach, so an emetic was administered in the form of a handful of common salt, with immediate and seismic effect. Then a decoction of neem leaves was poured down the man's throat. The neem tree is an enemy of all fevers and a friend of man generally, so much so that it is healthful to sleep under its shade. Therefore a decoction of the leaves could not fail to be beneficial in one way or another. The residue of

the leaves was well rubbed into the crown of the man's head for more direct effect on the brains in case they might be affected. Something else was rubbed in under the root of the tongue.

In the meantime a man with some experience in exorcism had brought twigs of a tree of well-ascertained potency in expelling the devil, and advised that, in view of the known connection between serpents and Satan, it would be well to try beating the patient with these. The advice was taken, and many stripes were laid upon him. Massage was also tried, and other homely expedients, such as bandaging and thumping with the fists, were not neglected.

It was about noon when I was told of the accident, and I went down at once and found the poor man in a woeful state, as well he might be after such rough handling as he had suffered for four consecutive hours; but he was quite conscious and there was neither pain nor swelling in the bitten foot. I remonstrated most vigorously, pointing out that the snake, which nobody had seen, might not have been a venomous one at all, that there were no symptoms of poisoning, except such as might also be explained by the treatment the man had suffered at the hands of his friends, and that, in short, I could see no reason to think he was going to die unless they were determined to kill him.

My words appeared to produce a good effect on the Parsees at least, and they consented to stop curing the man and let him rest, giving him such stimulating refreshment as he would take, for he was a pious Mussulman and would not touch wine or spirits. I said what I could to cheer him up, and went away hoping that I had saved a human life. Alas! In an hour or so a friend came in with a root of rare virtue and persuaded the man to swallow some preparation of it. *_Post hoc_, whether *_propter hoc_** I dare not say, he became unconscious and sank. Before night he was buried.

All this did not happen in some obscure village in a remote jungle. It happened within a mile and a half of a town controlled by a municipal corporation which enjoys the rights and privileges of "local self-government." In that town there was a dispensary, with a very capable assistant-surgeon in charge, and in that dispensary I doubt not you would have found a bottle of strong *_liquor ammoniac_* and a printed copy of the directions issued by a paternal Government for the recovery of persons bitten by venomous serpents. But when the man was bitten the one thing which occurred to nobody was to take him there, and when I heard of the matter the assistant-surgeon had just left for a distant place, passing on his way the gate of the house in which the man lay. This was a bad case, but there is little reason to hope that it was altogether exceptional. I am afraid there can be no question at all that hundreds of the deaths put down to snake-bite by village punchayets every year might with more truth be registered as "cured to death."

XII

THE COBRA BUNGALOW

A STORY OF A MONEYLENDER

Beharil Surajmul was the greatest moneylender in Dowlutpoor. He was a man of rare talents. He remembered the face of every man who had at any

time come to borrow money of him since he began to work, as a little boy, in his father's office, so that it was impossible to deceive him. He had also such a miraculous skill in the making out of accounts that a poor man who had come to him in extremity for a loan of fifty rupees, to meet the expenses of his daughter's marriage, might go on making payments for the remainder of his life without reducing the debt by one rupee. In fact, it seemed to increase with each payment.

And if the matter went into court, Beharilal never failed to show that there was still a balance due to him much larger than the original loan. But so courteous and pleasant was the Seth in his manner to all that such matters never went into court until the right time, of which he was an infallible judge, for he knew the private affairs of every family in Dowlutpoor. Then a decree was obtained and the debtor's house, or land, was sold to defray the debt, Beharilal himself being usually the purchaser, though not, of course, in his own name, for he was a prudent man.

By these means Beharilal had become possessed of large estates, which he managed with such skill that they yielded to him revenues which they had never yielded to the former owners of them, while his tenants, who were mostly former owners, grew daily more deeply involved in their pecuniary obligations to him, and therefore entertained no thought of leaving him, for he could put them into prison any day if he chose. Their contentment gave him great satisfaction, and he treated them with benevolence, giving them advances of money for all their necessary expenses and appropriating the whole of their crops at the harvest to repay himself. He bound them to buy all that they had need of at his shop, so that he made profit off them on both sides.

And as his wealth increased, his person increased with it and his appearance became more imposing, so that he was regarded everywhere with the highest respect and esteem. He was, moreover, a very religious man and charitable beyond most. By early risers he might be seen in his garden seeking out the nests of ants and giving them, with his own hands, their daily dole of rice. It was his benevolent thoughtfulness which had supplied drinking troughs for the flocks of pigeons that continually plundered the stores of the other grain merchants. He had also established a pinjrapole for aged, sickly and ownerless animals of all kinds. To this he required all his tenants to send their bullocks when they became unfit for work, and he sold them new cattle, good and strong, at prices fixed by himself. If any of his old debtors, when reduced to beggary, came to his door for alms, they were never sent away without a handful of rice or a copper coin. He kept a bag of the smallest copper coins always at hand for such purposes.

Beharilal had a fine house, designed by himself and surrounded by a vast garden stocked with mangoes, guavas, custard apples, oranges and other fruit trees, and made beautiful and fragrant with all manner of flowers. The cool shade drew together birds of many kinds from the dry plains of the surrounding country, and it pleased Beharilal to think that they also were recipients of his bounty and that the benefits which he conferred on them would certainly be entered to the credit of his account with Heaven.

Some he fed, such as the crows, which flocked about the back door, like a convocation of Christian padres, in the morning and afternoon, when the ladies of his family gave out their portion of boiled rice and ghee. The pigeons also came together in hundreds in an open space under the shade of a noble peepul tree, where grain was thrown out for them at three o'clock every day; and among them were many chattering sparrows

and not a few green parrots, which walked quaintly among the bustling pigeons, their long tails moving from side to side like the pointer of the scale on which the Bunia weighed his rupees. This resemblance struck him as he reclined against the fat red cushion in his verandah summing up his gains. There were other birds which would not eat his food, but found abundance, suited to their respective castes, among the shrubs and trees that he had planted. Mynas walked eagerly on the lawns looking for grasshoppers, glittering sunbirds hovered over the flowers, thrusting their slender bills into each nectar-laden blossom, bulbuls twittered among the mulberries and the koel made the shady banyan tree resound with its melodious notes.

In a remote corner of the garden, under the dark shade of a tamarind, there stood a small shrine, like a whitewashed tomb, with a niche or recess on one side of it containing a conical stone smeared with red ochre. Some called it Mahadeo and some Khandoba, but no one could explain the presence of a Mahratta god in a Bunia's garden in Dowlutpoor, except by quoting an old tradition about one Narayen who had come from the Mahratta country and lived for many years in this place. Some said he was a prosperous goldsmith of great piety, but others maintained that he was a Sunyasee, or saint, and there was no certainty in the matter. The one point on which all were agreed was the great sanctity of the shrine, and Beharilal was most careful to perform at it every ceremony which custom, or tradition, sanctioned for placating the god and averting any calamity that might arise from his displeasure.

At the base of one of the old cracked walls of the shrine there was a hole which was the den of a very large, black cobra. Several times it had been seen in the garden, and, when pursued, had glided into this hole and escaped. When Beharilal first heard of it he was much troubled in his mind, but, having consulted a Brahmin, he gave strict injunctions that the reptile should not be molested, and since that time he had never failed to place an offering of milk near to the hole in the morning and in the evening.

Now it happened that at this time there was in Dowlutpoor an English doctor who was generally known as the Jadoo-walla Saheb, because he was believed to practise sorcery and had some mysterious need of snakes. Perhaps he was only making experiments with their venom. At any rate, he wanted live cobras and offered a good price for them. So when Nagoo, the snake-charmer, heard that there was a large one in Beharilal's garden, he thought he might do good business by capturing it for the Jadoo-walla Saheb, and at the same time demanding a reward from the timorous Bunia for ridding him of such a dangerous neighbour. With this intent he repaired to the garden with all the apparatus of his art, his flat snake baskets, his mongoose and his crooked pipe. Having reconnoitred the ground, he commenced operations by sitting down on his hams and producing such ear-splitting strains from the crooked pipe as might have charmed Cerberus to leave his kennel at the gate of hell. Great was his surprise and mortification when he heard the voice of Beharilal raised in tones of unwonted passion and saw a stalwart Purdaissee advancing towards him armed with an iron-bound lathee, who, without ceremony, nay, with abusive epithets, hustled him and all his gear out of the garden. Nagoo was a snake-charmer and by nature a gipsy, and this treatment rankled in his dark bosom.

Some weeks passed and the sun had scarcely risen when Beharilal sat in the ota in front of his house at his daily business, which began as soon as his teeth were cleaned and ended about eleven at night. The place was not tidy. Two or three mats were spread on the floor, a spare one was rolled up in a corner, several pairs of shoes were on the steps,

umbrellas leaned against the wall, handles downwards, and a large chatty of drinking water stood beside them. The Bunia himself, bare-headed and bare-footed, sat cross-legged on a cushion, with a wooden stool in front of him, on which lay an open ledger of stout yellowish paper, bound in soft red leather and nearly two feet in length. In this he was carefully entering yesterday's transactions with a reed pen, which he dipped frequently in a brass inkpot filled with a sponge soaked in a muddy black fluid.

Beside him sat his son, aged two years, playing with the red, lacquered cylinder in which he kept his reed pens. Beharilal had two girls also, but they were with the women folk in the interior of the house, where he was content they should stay. This was his only boy, the pride and joy of his heart. Engrossed as he was in recording his gains, he could not refrain from lifting his eyes now and again to feast them on that rotund little body, like a goblet set on two pillars. No clothing concealed the tense and shiny brown skin, but there were silver bracelets on the fat wrists and massive anklets where deep creases divided the fat little feet from the fat little legs, and a representation, in chased silver, of Eve's fig leaf hung from a silver chain which encircled the sphere that should have been his waist. His globular head was curiously shaven. From two deep pits between the bulging brow and the fat cheeks that nearly squeezed out the little nose between them, two black diamonds twinkled, full of wonder, as the small purse mouth prattled to itself softly and inarticulately of the mysteries of life.

Suddenly a startled cry, passing into a prolonged wail of fear, roused old Beharilal, and he saw a sight that nearly caused him to swoon with terror. The little man, a moment ago so placid and happy, was shrinking back with "I don't like that thing" inscribed in lines of anguish on his distorted face, and not three feet from him a huge cobra, just emerged from the roll of matting, eyed him with a stony stare, its head raised and its hood expanded. Its quivering tongue flickered out from between its lips like distant flashes of forked lightning.

For a moment Beharilal stood stupefied, then all the heroism that was in him spent itself at once. Seizing the heavy wooden stool in both his hands, he raised it high over his head and dashed it down on the reptile. The sharp edge of hard wood broke its back, and as it wriggled and lashed about, biting at everything within reach, the Bunia snatched up his boy and waddled into the house at a pace to which he had long been unaccustomed, calling out, in frantic gasps, for help. A rush of excited and screaming women met him in the inner court, and he dropped his precious burden, with pious ejaculations, into the arms of its mother, and stood panting and speechless. Then calling aloud to know if all danger was past, he ventured cautiously out again and saw that the Purdaissee and the Malee had ejected the wriggling cobra and were pounding its head into a jelly with a big stone.

For some seconds he looked on in a strange stupor, and then he realised what he had done. He, Beharilal, the Bunia, who had always removed the insects so tenderly from his own person that they were not hurt, who had never committed the sin of killing a mosquito or a fly; he, with his own hands, had taken the life of the guardian cobra of the shrine! "Urray-ray! Bap-ray!" he cried, "for what demerit of mine has this ill-luck befallen me in my old age? What will happen now?"

"Nay, Sethjee," said the Malee, "be not afraid. It was in your destiny that this offspring of Satan should come to its end by your hand. We have pounded its head properly, so it will not return to you,"

"But what of its mate?" said Beharilal. "I have heard that, if any man kills a cobra, its mate will follow him by day and by night until it has had its revenge. Is that not so?"

The Malee answered, "Chh, Chh! There is no mate of this cobra," but his tone was not confident.

"Go," cried Beharilal--"go quickly and call Nagoo, the snake-charmer. He has knowledge."

"I will go," said the Malee, and set off at a run; but when he got out of the gate he lapsed into a leisurely walk, for why should a man lose his breath without cause? In time he found his way to the little settlement of huts constructed of poles and mats, where Nagoo sat on the ground smoking his "chillum," and told his errand.

"Why should I come?" was Nagoo's reply; "I went to take away that cobra and the Bunia drove me from the garden with abuse. Why does he send for me now?"

"He is a Bunia," said the Malee, as if that summed up the whole matter; but he added, after a pause, "If he sees a burning ground, he shakes like a peepul leaf. The cobra has died by his hand and his liver has become like water. Whatever you ask he will give. You should come,"

Nagoo replied aloud, "I will come," and to himself, "I will give him physic." Then he took up his baskets and his pipe and followed the Malee.

Beharilal proceeded to business with a directness foreign to his habit, looking over his shoulder at intervals lest a snake might be silently approaching. "Good Nagoo," he said, "a great misfortune has happened. The cobra of the shrine has been killed. Has it a mate?"

"How can a cobra not have a mate?" answered Nagoo curtly.

Then Beharilal employed the most insinuating of the many tones of his voice. "Listen, Nagoo. You are a man of skill. Capture that cobra and I will pay you well. I will give you five rupees." Then, observing no response in the wrinkled visage of the charmer, "I will give you ten rupees."

Nagoo would have sold his revenge for a tithe of the wealth thus dangled before him, but he saw no reason to suppose that there was another cobra anywhere in the garden, so he answered with the calm confidence of an expert, "That cannot be done. The serpent will not heed any pipe now. In its mind there is only revenge."

"Then what will it do?" said the trembling Bunia.

"If its mate died by the hand of a man, it will follow that man until it has accomplished its purpose."

"But how will it know," asked Beharilal, "by whose hand its mate died?"

Nagoo replied with pious simplicity, "How can I tell by what means it knows? God informs it."

"But," pleaded Beharilal, "is there no escape?--if a man goes away by the railway or by water?"

Nagoo pondered for a moment and said, "If a man crossed the sea, the serpent would be baulked. If he goes by railway it will not leave him. Let him go to Madras, it will find him."

With a faltering hand the Bunia put some rupees, uncounted, into the charmer's skinny palm, saying, "Go, make incantations. Do something. There is great knowledge of mysteries with you"; and he hurried back into the house.

His arrangements were very soon made. His account books, with a bundle of bonds and hoondies and cash and his son, were put into a small cart drawn by a pair of fast trotting bullocks, into which he himself climbed, after looking under the cushion to see that there was no evil beast lurking there, and got away in haste while the sun was yet hot. The rest of the family followed with the household property, and in a few days the house was empty and only the Malee remained in charge. Many years have passed and the house is empty still, and the Malee, grown grey and frail, is still in charge. He gets no wages, but he sells the jasmine flowers and the mangoes and guavas, and he grows chillies and brinjals, and so fills the stomachs of himself and his little grandson and is contented. If you ask him where the Seth has gone, he replies, "Who knows?" His debt has gone with his creditor, "gone glimmering through the dream of things that were," and he has no desire to recall them.

A civil or military officer from the station, taking a solitary walk, sometimes finds himself at the Cobra Bungalow, and turns in to wander among its old trees and unswept paths, obstructed by overgrown and untended shrubs, and wonders how it got its name. Then he pauses at the whitewashed shrine and notes that the god-stone has been freshly painted red and that chaplets of faded flowers lie before it. But the old Malee approaches with a meek salaam and a posy of jasmine and marigolds and warns him that there is a cobra in the shrine.

XIII

THE PANTHER I DID NOT SHOOT

It was January 13 of a good many years ago, in those happy days that have "gone glimmering through the dream of things that were." The sun had scarcely risen, and I was sitting in the cosy cabin of my yacht enjoying my "chota hazree," which, being interpreted, means "lesser presence," and in Anglo-Indian speech signifies an "eye-opener" of tea and toast--the greater presence appears some hours later and we call it breakfast. I will not say that the view from my cabin windows was enchanting. The placid waters of the broad creek would have been pleasant to look upon if the level rays of the sun in his strength had not skimmed them with such a blinding glare, but the low, flat-topped hills that bounded them were forbidding.

The people said truly that God had made this a country of stones, but they forgot that He had clothed the stones with trees of evergreen foliage and a dense undergrowth of shrubs and grass, to protect and hold together the thick bed of loam which the fallen leaves enriched from year to year. It was the axes of their fathers that felled the trees, to sell for fuel, and the billhooks of their mothers that hacked away the bushes and grubbed up their very roots to burn on the household

cooking hole. Then the torrential rains of the south-west monsoon came down on the naked, defenceless, parched and cracked soil and swept it in muddy cascades down to the sea, leaving flats of bare rock, strewn thick with round stones, sore to the best-shod foot of man and cruel to the hoofs of a horse. About and among the huts of the unswept and malodorous hamlet just above the shore there were fine trees, mango, tamarind, babool and bor, showing what might have been elsewhere.

On the rounded top of the highest hill frowned in black ruin an old Mahratta fort, covered on the top and sides and choked within by that dense mass of struggling vegetation which always takes possession of old forts in India. The weather-worn stones and crumbling mortar seem to feed the trees to gluttony. First some bird-drops the seeds of the banian fig into crevices of the ramparts, and its insidious roots push their way and grow and grow into great tortuous snakes, embracing the massive blocks of basalt, heaving them up and holding them up, so that they cannot fall. Then prickly shrubs and thorny trees follow, fighting for every inch of ground, but quite unable to eject the gently persistent custard-apple, descended doubtless from seeds which the garrison dropped as they ate the luscious fruit, on account of which the Portuguese introduced the tree from South America. I had penetrated into that fort and had seen something of the snakes and birds of night, but not the ghosts and demons which I was assured made it their habitation by day.

On a level place a little below the fort stood two monuments, telling of the days when the Honourable East India Company maintained a "Resident" at this place. Here he lived in proud solitude, upholding the British flag. But his wife and the little one on whose face he had not yet looked were on their way from Bombay in a native "pattimar" to join him, and as he stood gazing over the sea at the red setting sun one 5th of October, he thought of the glad to-morrow and the end of his dreary loneliness. It fell to him to put up one of these monuments, with a sorrowful inscription to all that was left to him on the following morning, the "memory" of a beloved wife and an infant thirty-one days old, drowned in crossing the bar on October 6, 1853.

We have strewed our best to the weeds unrest,
To the shark and the sheering gull.
If blood be the price of admiralty,
Lord God, we ha' paid in full.

I carried my gun and rifle with me in my yacht. They served to keep up my character as a sportsman, and did not often require to be cleaned. So the morning calm of my mind was lashed into an unwonted tempest of excitement when my jolly skipper, Sheikh Abdul Rehman, came in and told me briefly that a "bag" (which word does not rhyme with rag, but must be pronounced like barg without the _r_ and signifies a tiger or panther) had killed a cow in the village the night before last.

When he added that the villagers had set a spring gun for it last evening and it had returned to the "kill" and been badly wounded, my excitement was turned into wrath. I had been at anchor here all yesterday. The Indian ryot everywhere turns instinctively to the _sahib_ as his protector against all wild beasts. What did these men mean by keeping their own counsel and setting an infernal machine for their enemy? Abdul Rehman explained, and the explanation was simple and sufficient. My fat predecessor in the appointment that I held had no relish for sport and kept no guns, so the simple villagers, when they saw my boat with its familiar flag, looked for no help from that quarter. However, I might still win renown off that wounded "bag," if it

was not a myth; but, to tell the truth, I was sceptical. The tiger and the panther are not nomads on rocky plains, like the antelope. I landed, notwithstanding, promptly and visited the scene. Sure enough, there was a young heifer lying on its side, with the unmistakable deep pits where the jaws of the panther had gripped its throat, and a gory cavity where it had selected a gigot for its dinner.

Round the corpse the villagers had arranged a circular fence of thorns, with one opening, across which they had stretched a cord, attached at the other end to the trigger of an old shooting iron of some sort, charged with slugs and looking hard at the opening. The gun had gone off during the night, and the ground was soaked with blood. A few yards off there was another great swamp of blood. The beast had staggered away and lain down for a while, faint and sick. Then it had got up and crawled home, still dripping with blood, by which we tracked it for a good distance, but the trace grew gradually fainter and at last ceased altogether.

"It has gone to the fort," said the men--"bags always go to the fort." I pointed out that, if it had meant to go to the fort, it would have gone towards the fort, instead of in another direction; but the argument did not move them. "The fort is a jungle, and where else should a 'bag' take refuge but in a jungle?" However, I was obstinate, and pursued the original direction until we arrived at the brow of the hill, where it sloped steeply down to the sea. The whole slope, for half a mile, was covered with a dense scrub of Lantana bushes. This is another plant introduced in some by-gone century from South America, and planted first in gardens for its profuse clusters of red and pink verbenalike blossoms (it is a near relation of the garden verbenalike), whence it has spread like the rabbit in New Zealand, and become a nuisance. "There," I cried, pointing at the scrub, "there, without doubt, your wounded 'bag' is lying."

Some of the men, unbelieving still, were amusing themselves by rolling large stones down the slope, when suddenly there was a sound of scrambling, and across an opening in the scrub, in sight of us all, a huge hyaena scurried away "on three legs." I sent a man post-haste for my rifle, which I had not brought with me, never expecting to require it until a regular campaign could be arranged. As soon as it arrived, we formed in line and advanced, throwing stones in all directions.

Make no offering of admiration at the shrine of our hardihood, for we were in no peril. Among carnivorous beasts there is not a more contemptible poltroon than the hyaena, even when wounded. A friend of mine once tied up a billy goat as a bait for a panther and sat up over it in a tree. In the middle of the night a hyaena nosed it from afar, and came sneaking up in the rear, for hyaenas love the flesh of goats next to that of dogs. But the goat saw it, and, turning about bravely, presented his horned front. This the hyaena could not find stomach to face. For two hours he manoeuvred to take the goat in rear, but it turned as he circled, and stood up to him stoutly till the dawn came, and my friend cut short its disreputable career with a bullet.

To return to my story, we had not gone far when, on a lower level, not many yards from me, I was suddenly confronted by that repulsive, ghoulish physiognomy which can never be forgotten when once seen, the smoky-black snout, broad forehead and great upstanding ears. Instantly the beast wheeled and scrambled over a bank, receiving a hasty rear shot which, as I afterwards found, left it but one limb to go with, for the bullet passed clean through a hindleg and lodged in a foreleg. It went on, however, and some time passed before I descried it far off

dragging itself painfully across an open space. A careful shot finished it, and it died under a thick bush, where we found it and dragged it out. It proved to be a large male, measuring 4 feet 7 inches, from which something over a foot must be deducted for its shabby tail.

The natives all maintained still that their cow had been killed by a panther, saying that the hyaena had come on the second night, after their manner, to fill its base belly with the leavings. And there was some circumstantial evidence in favour of this view. In the first place, I never heard of a hyaena having the audacity to attack a cow; in the second, the tooth-marks on the cow showed that it had been executed according to the tradition of all the great cats--by seizing its throat and breaking its neck; and in the third, a hyaena, sitting down to such a meal, would certainly have begun with calf's head and crunched up every bone of the skull before thinking of sirloin or rumpsteak. But the absurdity of a panther being found in such a region outweighed all this and I scoffed.

I was yet to learn a lesson in humility out of this adventure. Two years later I sailed over the bar and dropped anchor at the same spot. I was met with the intelligence that on the previous evening two panthers had been seen sitting on the brow of the hill and gazing at the beauties of the fading sunset, as wild beasts are so fond of doing. A night or two later a cow was attacked in a neighbouring field, and, staggering into the village, fell down and died in a narrow alley between two houses. The panther followed and prowled about all night, but the villagers, hammering at their doors with sticks, scared it from its meal.

I at once had a nest put up in a small tree, and took my position in it at sunset. The common people in India do not waste much money on lamp oil, preferring to sleep during the hours appointed by Nature for the purpose, so it was not long before all doors were securely barred and quietness reigned. Then the mosquitoes awoke and came to inquire for me, the little bats (how I blessed them!) wheeled about my head, the night-jar called to his fellow, and the little owls sat on a branch together and talked to each other about me. Hour after hour passed, and it became too dark in that narrow alley to see a panther if it had come. So I came down and got to my boat. The panther was engaged a mile away dining on another cow! On further inquiry I learned that there was some good forest a day's journey distant, and it was quite the fashion among the panthers of that place to spend a weekend occasionally at a spot so full of all delights as this dark, jungle-smothered fort.

XIV

THE PURBHOO

I do not believe that the Member of Parliament who moved the adjournment of the House to consider the culpable carelessness of the Government of India in allowing the Rajah of Muttighur to fall into the moat of his own castle when he was drunk, could have told you what a Purbhoo is, not though you had spelled it Prabhu, so that he could find it in his Gazetteer. Of course he saw hundreds of them during that Christmas which he spent in the East before he wrote his book; but then he took them all for Brahmins. He never noticed that the curve of their turbans was not the same, and the idol mark on their foreheads was quite different, nor even that their shoes were not forked at the toes, but

ended in a sharp point curled upwards. And if he did not see these things which were on the surface, what could he know of matters that lie deeper?

Now the first and most important thing to be known respecting the Purbhoo, the fundamental fact of him, is that he is not a Brahmin. If he were a Brahmin, one essential piece of our administrative apparatus in India would be wanting, and without it the whole machinery would assuredly go out of order. Nor is it easy to see how we could replace him. Not one of the other castes would serve even as a makeshift. They are all too far removed from the Brahmin. But the Purbhoo is near him, irritatingly near him, and he has proved in practice to be just the sort of homoeopathic remedy we require, the counter-irritant, the outward blister by wise application of which we can keep down the internal inflammation.

In speaking of the Brahmin as an inflammation in the body politic I disown all offensive and invidious implications. I am only using a convenient simile. You may reverse it if you like and make the disease stand for the Purbhoo, in which case the Brahmin will be the blister. Which way fits the facts best will depend upon which caste chances at the time to be nearest to the vitals of Government.

The case stands thus. Before the days of British rule the Brahmin was the priest and man of letters, the "clerke" in short. The rajahs and chiefs were much of the same mind as old Douglas:

Thanks to Saint Bothan son of mine,
Save Gawain, ne'er could pen a line,

Gawain being a bishop. As a Mohammedan gentleman related to one of the ruling Indian princes put the matter when speaking to me a few years ago, "In those days none of us could write. Our pen was the sword. If any writing had to be done the Brahmin was called in." And no doubt he did excellent service, being diligent, astute, and withal pliant and diplomatic. If to these qualities he added ambition, he might, and often did, become a Cardinal Wolsey in the state. In Poona, for example, the Brahmin Prime Minister gradually overshadowed the Mahratta king, and the descendant of Shivajee was put on a back shelf as Rajah of Sattara, while the Peishwa ruled at the capital.

Of course this carnal advancement was not gained without some sacrifice of his spiritual character, and the "secular" Brahmin had to bow, _quoad sacra_, to the penniless Bhut, or "regular" Brahmin, who, refusing to contaminate his sanctity by doing any kind of work, ate of the temple, or lived by royal bounty or private charity, and by the free breakfasts without which a marriage, "thread ceremony" or funeral in a gentleman's house could not be respectably celebrated. Idleness and sanctity are a powerful combination, and it is written in the _shastras_ that every day in which a holy man does no work for his bread, but lives by begging, is equal in the eyes of the gods to a day spent in fasting; so, though the prospect of power and wealth might tempt a few restless and wayward spirits, the great mass of the Brahmin caste clung to the sacred calling.

All this time the Purbhoo was in the land, but insignificant. He had no sacred calling. Tradition assigned him a hybrid origin. He could not presume to be a warrior, because his mother was a _shoodra_, nor could he condescend to be a farmer, for his father was a _kshutriya_. So the gods had given him the pen, and he was a writer--not a secretary, but a humble quill-driver. But when the Portuguese and then the British came

upon the scene, not ruling by word of mouth, like the native rajahs, but inditing their orders and keeping records, the Purbhoo saw an open door and went in.

Then the Brahmin woke up, for he saw that he was in evil case. The spirit of the British _raj_ was falling like a blight and a pestilence upon the means by which he had lived, drying up the fountains of religious revenue and slowly but surely blighting the luxuriance of that pious liberality which always took the form of feeding holy men. He found that he must work for his bread whether he liked it or not, and the only implement of secular work that would not soil his priestly hand was the pen. And this was already taken up by the Purbhoo, who carried himself haughtily under the new _regime_ and showed no mind to make way for the holier man. Hence sprang those bitter enmities and jealousies which have done so much to lighten the difficulties of our position.

The British Government has often been accused of acting on the maxim, _Divide et impera_. It is a libel. We do not divide, for there is no need. Division is already there. We have only to rejoice and rule. How well and justly we rule all the world knows, but only the initiated know how much we owe to the fact that the talents and energies which would otherwise be employed in thwarting our just intentions and phlebotomising the ryot are largely preoccupied with the more useful work of thwarting and undermining each other.

What could a collector do single-handed against a host of clerks and subordinate magistrates and petty officials of every grade, all armed with the awfulness of a heaven-born sanctity, all hedged round with the prestige of an ancient supremacy, endowed with a mole-like genius for underground work which the Englishman never fathoms, and all leagued together to suck to the uttermost the life blood of those inferior castes which were created expressly for their advantage?

He is working in a foreign language, among customs and ways of thought which it takes a lifetime to understand: _they_ are using their mother tongue and handling matters that they have known from childhood. _He_ cannot tell a lie and is ashamed to deceive: _they_ are trained in a thrifty policy which saves the truth for a last resort in case everything else should fail. He would be helpless in their hands as a sucking child. But he knows they will do for him what he cannot do for himself. The Purbhoo will lie in wait for the Brahmin, and the Brahmin will keep his lynx eye on the Purbhoo. And woe to the one who trips first. So the collector arranges his men with judicious skill to the fostering of each other's virtue, and the result is most gratifying. The country blesses his administration, and his subordinates are equally surprised and delighted at their own integrity.

I speak of a wise and able administrator. There are men in the Indian Civil Service who are neither wise nor able, and some who are not administrators at all, having most unhappily mistaken their vocation. When such a one becomes collector of a district his _chitnis_, or chief secretary, sees that that tide in the affairs of men has come which, "taken at the flood, leads on to fortune," and his caste-fellows all through the service are filled with unholy joy. But he does nothing rash or hasty. Willily and patiently he goes to work to make his own foundation sure first of all. He studies his chief under all conditions, discovers his little foibles and vanities and feeds them sedulously. He masters codes, rules and regulations, standing orders, precedents and past correspondence, till it is dangerous to contradict him and always safe to trust him. In every difficulty he is at hand, clearing away perplexity and refreshing the "swithering" mind with his precision and

assurance. He becomes indispensable. The collector reposes absolute confidence in him and is proud to say so in his reports.

Then the _chitnis_, if he is a Brahmin, addresses himself to the task of eliminating the Purbhoo from the service, or at least depriving him of place and power. It is a delicate task, but the Brahmin's touch is light. He never disparages a Purbhoo from that day; "damning with faint praise" is safer and as effectual. He practises the charity which covereth a multitude of faults, but he leaves a tag end of one peeping out to attract curiosity, and if the collector asks questions, he is candid and tells the truth, though with manifest reluctance. Then he grapples with the gradation lists, which have fallen into confusion, and puts them into such excellent order that the collector can see at a glance every man's past services and present claims to promotion. And from these lists it appears that clearly, whenever any vacancy has to be filled, a Brahmin has the first claim. And so, as the shades of night yield to the dawn of day, the Purbhoo by degrees fades away and disappears, and the star of the Brahmin rises and shines everywhere with still increasing splendour.

But the Purbhoo possesses his soul in patience, and keeps a note of every slip that the Brahmin makes. For the next _chitnis_ may be a Purbhoo, and then the day of reckoning will come and old scores will be paid off. The Brahmin knows that too, and the thought of it makes him walk warily even in the day of his prosperity. Thus our administration is saved from utter corruption.

XV

THE COCONUT TREE

Among the classic fairy-tales which passed like shooting stars across those dark hours of our boyhood in which we wrestled with the grim rudiments of Latin and Greek, and which abide in the memory after nearly all that they helped to brighten has passed away, there was one which related to a contest between Neptune and Minerva as to which should confer the greatest benefit on the human race. Neptune first struck his trident on the ground (or was it on the waves? "Eheu fugaces"--no, that also is gone), and there sprang forth a noble steed, pawing the ground, terrible in war and no less useful in peace. Then the watery god leaned back and smiled as if he would say, "Now, beat that." But the Goddess of Wisdom brought out of the earth a modest, dark tree bearing olives and, in classic phrase, "took the cake," Oriental mythology is more luxuriant and fantastic than that of the West, but I do not know if it has any legend parallel to this. If it has, then I am sure the palm is awarded to the deity who gave to the human race the tree that bears the coconut.

Passing a confectioner's shop, I saw a tempting packet labelled "Cokernut Toffee." I bought a pennyworth and gave it to my little girl, and

"I laye a-thynkyng, a-thynkyng, a-thynkyng."

How many boys and girls are there in this kingdom to whom the word coconut connotes an ingredient which goes to the making of a very toothsome sweetie? And how many confectioners and shop girls are there whose idea is no broader? Again:

"I laye a-thynkyng, a-thynkyng, a-thynkyng,
And merrie sang the Birde as she sat upon the spraye."

And I said, "Little Bird, what do you know of the coconut?" And it made answer, "It is a cup full of food, rich and sweet, which kind hands hang out for me in winter," How narrow may be the key-hole through which we take our outlook on things human and divine, never doubting that we see the whole! In our own British Empire, only a few thousand miles away, sits a mild Hindu, almost unclad and wholly unlettered, to whom the tree that bore the fruit that flavoured the toffee that my little girl is enjoying seems to be one of the predominating tints of the whole landscape of life. It puts a roof over his head, it lightens his darkness, it helps to feed his body, it furnishes the wine that maketh glad his heart and the oil that causeth his face to shine, and time would fail me to tell of all the other things that it does for him. As a type and symbol, it is always about him, spanning the sunshine and shower of life with bows of hope.

The coconut tree is a palm, and has nothing to do with cocoa of the breakfast table. That word is a perversion of "cacao," and came to us from Mexico: the other is the Portuguese word "coco," which means a nut. It is what Vasco da Gama called the thing when he first saw it, and the word, with our English translation added, has stuck to it. The tree is, I need scarcely say, a palm, one of many kinds that flourish in India. But none of them can be ranked with it. The rough date palm makes dense groves on sandy plains, but brings no fruit to perfection, pining for something which only Arabia can supply; the strong but unprofitable "brab," or fan palm, rises on rocky hills, the beautiful fish-tailed palm in forests solitarily, while the "areca" rears its tall, smooth stem and delicate head in gardens and supplies millions with a solace more indispensable than tobacco or tea. But the coconut loves a sandy soil and the salt breath of the sea and the company of its own kind. The others grow erect as a mast, but the gentle coconuts lean on the wind and mingle the waving of their sisterly arms, casting a grateful shade on the humble folk who live under their blessing.

To the mariner sailing by India's coral strand that country presents the aspect of an endless beach of shell sand, quite innocent of coral, on which the surf breaks continually into dazzling white foam against a dark background of pensive palms. He might naturally suppose that they had grown up of themselves, like the screw-pines and aloes which sometimes share the beach with them; but that would be a great mistake. Everyone of them has been planted and carefully watered for years and manured annually with fresh foliage of forest trees buried in a moat round the root. And so it grew in stature, but not in girth, until its head was sixty, seventy or even eighty feet above the ground, and a hundred nuts of various sizes hung in bunches from long, shiny, green arms, each as thick as a man's, which had thrust themselves out from between the lower fronds.

There is no production of Nature that I know of less negotiable than a coconut as the tree presents it. The man who first showed the way into it deserved a place in mythology with Prometheus, Jason and other heroes of the dawn. There is a crab, I know, which lives on coconuts, enjoying the scientific name of *Birgus latro*, the Burglar; but it seems to be a special invention, as big as a cat and armed with two fearful pairs of pincers in front for rending the outside casings of the fruits, and a more delicate tool on its hind-legs for picking out the meat. Other animals have to do without it, as had man, I opine, in the stone and copper ages. With the iron age came a chopper, called in Western India a

"koita," with which he can hack his way through most of the obstructions of life. When, with this, he has slashed off the tough outer rind and the inch-thick packing of agglutinated fibres, like metal wires, he has only to crack the hard shell which contains the kernel.

How little we can conceive the spaces in his life that would be empty without that firm pulp, at once nutritious, sweet and fragrant! Curry cannot be made without it, the cook cannot advance three steps in its absence, pattimars laden with it are sailing north, south, east and west, a thousand creaky wooden mills are squeezing the limpid oil out of it, a hundred thousand little earthen lamps filled with that oil are making visible the smoky darkness of hut and temple, brightening the wedding feast and illuminating the sad page over which the candidate for university honours nods his shaven head. That oil fed lighthouses of the first order and illuminated viceregal balls and durbars before paraffin and kerosene inundated the earth. And it has other uses. For arresting premature baldness and preventing the hair turning grey its virtues are equalled by no other oil known to us, and there is a fortune awaiting the hairdresser who can find means effectually to remove or suppress its peculiar and penetrating odour. Joao Gomez, my faithful "boy," did not object to the odour, and when he had been tempted to pass my comb through his raven locks as he was dusting my dressing table, I always knew it.

When the white kernel has been turned to account, the utilities of the coconut are not exhausted. The shell, neatly bisected, makes a pair of teacups, and either of these, fitted with a wooden handle, makes a handy spoon. Laurencio de Gama demands one or two of these inexpensive spoons to complete the furnishing of my kitchen. As for the obstinate casing that wraps the coconut shell, it is an article of commerce. It must first be soaked for some months in a pit on the slimy bank of the backwater, until all the stuff that holds it together in a stiff and obdurate mass has rotted away and set free those hard and smooth fibres which nothing can rot. These, when thoroughly purged of the foul black pollution in which they have sweltered so long, will go out to all quarters of the world under the name of "coir" to make indestructible door mats and other indispensable things. It will penetrate to every corner of India in which a white man lives, to mat his verandahs and stuff his mattresses.

And who shall recount a tithe of its other uses? Of course, the nude man under the coconut tree knows nothing of all this. He does without a mattress, and has no use for a door mat. But he cannot do without cordage, and if you took from him his coconut fibre, life would almost stop. Wherewith would he bind the rafters of his hut to the beams, or tether the cow, or let down the bucket into the well? What would all the boats do that traverse the backwater, or lie at anchor in the bay, or line the sandy beach? From the cable of the great pattimar, now getting under weigh for the Persian Gulf with a cargo of coconuts, to the painter of the dugout, "hodee," every yard of cordage about them is made of imperishable coir.

When the axe is at last laid to the old coconut tree, a beam will fall to the earth sixty feet in length, hard as teak and already rounded and smoothed. True, you cannot saw it into planks, but no one will complain of that in a village which does not own a saw. It cleaves readily enough and straightly, forming long troughs most useful for leading water from the well to the plantation and for many other purposes. It can also be chopped into lengths suitable for the ridge poles of the hut, or for bridges to span the deep ditches which drain the rice fields or feed the salt pans. When out in quest of snipe I have sometimes had to choose

between crossing by one of those bridges, innocent of even a handrail, and wading through the black slough of despond which it spanned. Choosing neither, I went home, but the "Kolee" and the "Agree" trip over them like birds, balancing household chattels on their steady heads.

We must not think, however, of the trunk as, at the best, anything more than a by-product of the coconut tree, whose head is more than its body. Even while it lives its head is shorn once a year, for, as fresh fronds push out and upward from the centre, those of the outer circle get old and must be cut away. And when one of those feathery, fern-like fronds, toying with the breeze, comes crashing to the ground, it is ten or twelve feet long, and consists of a great backbone, as thick at the base as a man's leg, with a close-set row of swords on either side, about a yard in length. They are hard and tough, but supple yet and of a shiny green colour; but they will turn to brown as they wither.

Now observe that this gigantic, unmanageable-looking leaf, like everything else about the coconut tree, is almost a ready-made article, demanding no machinery to turn it to account, except the "koita" which hangs ever ready from the nude man's girdle. With it he will cleave the backbone lengthwise, and then, taking each half separately, he will simply twist backwards every second sword and plait them all into a mat two feet wide, eight or ten feet long, and firmly bounded and held together on one side by the unbreakable backbone. This is a "jaolee," lighter than slates, or tiles, and more handy than any form of thatch. You have just to arrange your "jaolees" neatly on your bamboo frame, each overlapping the one below it, then tie them securely in their places with coir rope and your roof is made for a year.

There is yet another benevolence of the coconut tree which I have left to the last, and the simple folk of whom I am trying to write with fellow feeling would certainly have named it first. I ought to refer to it as a curse: they, without qualm or question, call it a blessing. Let me try to describe it dispassionately. If you wander in any palm grove in Western India, looking upward, it will soon strike you that a large number of the trees do not seem to bear coconuts at all, but black earthen pots. If your visit should chance to be made early in the morning, or late in the afternoon, the mystery will soon be revealed. You will see a dusky, sinewy figure, not of a monkey, but of a man, ascending and descending those trees with marvellous celerity and ease, grasping the trunks with his hands and fitting his naked feet into slight notches cut in them. The distance between the notches is so great that his knee goes up to his chin at each step, but he is as supple as he is sinewy and feels no inconvenience. For he is a Bhundaree, or Toddy-drawer, and his forefathers have been Bhundarees since the time, I suppose, when Manu made his immortal laws.

His waistcloth is tightly girded about him, in his hand he carries a broad billhook as bright and keen as a razor, and from his caudal region depends a tail more strange than any borne by beast or reptile. It looks like a large brown pot, constructed in the middle. It is, in fact, a large gourd, or calabash, hanging by a hook from the climber's waistband. When he has reached the top of a tree, he gets among the branches and, sitting astride of one of them, proceeds to detach one of the black pots from the stout fruit stem on which it is fastened, and empty its contents into his tail. Then, taking his billhook, he carefully pares the raw end of the stem, refastens the black pot in its place and hurries down to make the ascent of another tree, and so on until his tail is full of a foaming white liquor spotted with drowned honey bees and filling the surrounding air with a rank odour of fermentation. This liquor is "toddy."

If I were a Darwin I would not leave that word until I had traced the agencies which wafted it over sea and land from the shores of Hindustan to the Scottish coast, where it first took root and, quickly adapting itself to a strange environment, developed into a new and vigorous species, spread like the thistle and became a national institution. At first it was only the Briton's way of mouthing a common native word, "tadi" (pronounced ta-dee), which meant palm juice; but it became current in its present shape as early as 1673, when the traveller Fryer wrote of "the natives singing and roaring all night long, being drunk with toddy, the wine of the cocoe." About a century later Burns sang,

The lads and lasses, blythely bent,
To mind baith saul and body,
Sit round the table, weel content,
And steer about the toddy.

Between these I can find no vestigia, but imagination easily fills the gap. I see a company of jovial Scots, met in Calcutta, or Surat, on St. Andrew's Day. European wines and beer are expensive, whisky not obtainable at all; but the skilful khansamah makes up a punch with toddy spirit, hot water, sugar and limes, and they are "well content." After many years I see the few of them who still survive foregathered again in the old country, and one proposes to have a good brew of toddy for auld lang syne. If real toddy spirit cannot be had, what of that? Whisky is found to take very kindly to hot water and sugar and limes, and the old folks at home and the neighbours and the minister himself pronounce a most favourable verdict on "toddy." In short, it has come to stay. But we must return to the liquor in the Bhundaree's gourd. It is the rich sap which should have gone to the forming of coconuts, which is intercepted by cutting off the point of the fruit stalk and tying on an earthen pot. If the pot is clean, the juice, when it is taken down in the morning, not fermented yet but just beginning to sparkle with minute bubbles, not too sweet and not so oily as the milk of the coconut, is nectar to a hot and thirsty soul. No summer drink have I drunk so innocently restorative after a hot and toilsome march on a broiling May morning. But the Bhundaree will not squander it so: he takes care not to clean his pots, and when he takes them down in the morning the liquor is already foaming like London stout. Not that he means to drink it himself, for you must know that, by the rules of his caste, he is a total abstainer, being a Bhundaree, whose function is to draw toddy, not to drink it. This is one of those profound institutes by which the wisdom of the ancients fenced the whole social system of this strange land.

But, while the Bhundaree must refuse all intoxicating drinks himself, it is his duty to exercise a large tolerance towards those who are not so hindered. He is, in fact, a partner in the business of Babajee, Licensed Vendor of Fresh Toddy, towards whose spacious, open-fronted shop, thatched with "jaolees," he now carries his gourds. There the contents will stand, in dirty vessels and a warm place, maturing their exhilarating qualities until the evening, when the Tam o' Shanters and Souter Johnnies of the village begin to assemble and squat in a ring in the open space in front. They may be Kolees, or fishermen, and Agrees, who make salt, and aboriginal Katkurrees from the jungle, with their bows and arrows, most bibulous of all, but among them all there will be no Bhundaree. Babajee sits apart, presiding and serving, beside a dirty table, on which are many bottles and dirty tumblers of patterns which were on our tables thirty years ago. The assembly begins solemnly, discussing social problems and bartering village gossip, for the Hindu is by nature staid. After a while, at the second bottle perhaps,

cheerfulness will supervene, then mirth and garrulity, ending, as the night closes round, with wordy contention and a general brawl. But nothing serious will happen, for toddy, though decidedly heady, is at the worst a thin potation. A strong and very pure spirit is distilled from it, which has its devotees, but the rustic, as a rule, prefers quantity to quality. We are often told that the British Government taught the people of India to drink, but the scene that I have tried to describe is indigenous conviviality, much older than any European connection with the country.

Is it any wonder that the coconut has become an emblem of fertility and prosperity and all good luck? When a new house is building you will see a high pole over the doorway, bearing coconuts at the top, with an umbrella spread over them. Do not ask the owner the meaning of the sign, for he does not know. He does not think about such matters, but he feels about them and he knows that that is the right thing to do. Besides, he might ask you why you nail a horseshoe over your door. The difference between us and him is that we do such things in jest, no longer believing in them. They are the husks of a dead faith with us. But the Hindu's faith is very living still. So, when he breaks a coconut at the launching of a pattimar, he is a gainer in hope, if nothing else; while we squander our champagne and gain nothing. That nut follows him even to the grave, or burning ground, with mystic significances which I cannot explain. I have been told that, when a very holy man dies, who always clothed himself in ashes and never profaned his hands with work, his disciples sometimes break a coconut over his head. If the spirit can escape from the body through the sutures of the skull instead of by any of the other orifices, it is believed to find a more direct route to heaven, so the purpose of this ceremony may be to facilitate its exit that way. In that case the breaking of the nut is perhaps only an accident, due to its not being so hard as the holy man's skull.

XVI

THE BETEL NUT

One half the world does not know how the other half lives. Noticing a pot of areca nut toothpaste on a chemist's counter, I asked him what the peculiar properties of the areca nut were--in short, what was it good for. He replied that it was an astringent and acted beneficially on the gums, but he had never heard that it was used for any other purpose than the manufacture of an elegant dentifrice. I felt inclined to question him about the camel in order to see whether he would tell me that it was a tropical animal, chiefly noted for the fine quality of its hair, from which artist's brushes were made. Here was a man whose special business it is to know the properties and uses of all drugs and their action on the human system, and he had not the faintest notion that there are nearly 300 millions of His Majesty's subjects, and many millions more beyond his empire, who could scarcely think of life as a thing to be desired if they were obliged to go through it without the areca nut. For the areca nut is the betel nut.

In the Canarese language and the kindred dialects of Malabar it is called by a name which is rendered as _adike_, or _adika_, in scientific books, but would stand more chance of being correctly pronounced by the average Englishman if it were spelled _uddiky_. The coast districts of Canara and Malabar being famed for their betel nuts, the trade name of

the article was taken from the languages current there, and was tortured by the Portuguese into _areca_. Over the greater part of India the natives use the Hindustanee name _supari_, but by Englishmen it is best known as the betel nut, because it is always found in company with the betel leaf, with which, however, it has no more connection than strawberries have with cream. The one is the leaf of a kind of pepper vine, and the other is the seed, or nut, of a palm. But nature and man have combined to marry them to one another, and it is difficult to think of them separately.

In life the betel vine climbs up the stem of the areca palm, and in death the areca nut is rolled in a shroud of the betel leaf and the two are munched together. Other things are often added to the morsel, such as a clove, a cardamom, or a pinch of tobacco, and a small quantity of fresh lime is indispensable.

What is the precise nature of the consolation derived from the chewing of this mixture it is not easy to say. Outwardly it produces effects which are visible enough, to wit, a most copious flow of saliva, which is dyed deep red by the juice of the nut, so that a betel nut chewer seems to go about spitting blood all the day. As every Hindu is a betel nut chewer, those 943,903 superficial miles of country which make up our Indian Empire must be bespattered to a degree which it dizzies the mind to contemplate. This is one of the difficulties of Indian administration. In large towns and centres of business it is found necessary to fortify the public buildings in various ways. The Custom House in Bombay has the wall painted with dark red ochre to a height of three or four feet from the ground.

But these are the outward results. What is the inwardness of the thing? In a word, why do the people chew betel nut? Surely not that they may spit on our public buildings. That is a chance result, not sought for and not shunned. There is, of course, some deeper reason. Early travellers in India were much exercised about this and used to question the people, from whom they got some curious explanations. One reports, "They say they do it to comfort the heart, nor could live without it." Another says, "It bites in the mouth, accords rheume, cooles the head, strengthens the teeth and is all their phisicke." A Latin writer gets quite eloquent. "_Ex ea mansione_"--by that chewing--he says, "mire recreantur, et ad labores tolerandos et ad languores discutiendos."

But the remarkable thing is that the betel nut has these effects only on the Hindu constitution. To a European the strong, astringent taste and penetrating odour of the betel nut are alike insufferable, and there is no instance on record, as far as I know, of an Englishman becoming a betel nut chewer. But wherever Hindu blood circulates, not in India only, but all through the islands of the Malay Archipelago, as far as the Philippines, the betel nut is an indispensable ingredient of any life that is worth living. Mohammedanism forbids spirits and Brahminism condemns all things that intoxicate or stupefy, but the betel nut is like the cup that cheers yet not inebriates. No religion speaks disrespectfully of it. It flourishes, blessed by all, and takes its place among the institutions of civilisation. Indeed it is the chief cement of social intercourse in a country where all ordinary conviviality between man and man is almost strangled by the quarantine enforced against ceremonial defilement. Friend offers friend the betel nut box just as Scotsmen offered the snuff-box in the hearty old days that are passing away. And all visits of ceremony, durbars, receptions, leave-takings, and public functions of the like kind are brought to an august close by the distribution of _pan supari_. To go through this rite without visible repugnance is part of the training of our young

Civil Servants. When the interview or ceremony has lasted as long as it was intended to last, there enter, with due pomp, bearers of heavy-scented garlands, woven of jasmine and marigold, and in form like the muffs and boas that ladies wear in winter. These are put upon the necks and wrists of the guests in order of rank. Silver vases and sprinklers follow, containing rose-water and attar of roses. You may ward off the former from your person by offering your handkerchief for it, and you may present the back of your hand for the latter, of which one drop will be applied to your skin with a tiny silver or golden spoon.

Finally, when everybody is reeking with incongruous odours and trying not to be sick, a silver tray appears with the daintiest little packets of *_pan supari_*, each pinned with a clove, and every guest is expected to transfer one to his mouth, for they have been prepared by a Brahmin and cannot hurt the most delicate caste. To an Englishman, however, it is now generally conceded to compromise by keeping the morsel in his hand, as if waiting an opportunity to enjoy it more at his leisure. When you get home your servant craves it of you and contrasts real rajah's *_pan supari_* with the stuff which the poor man gets in the bazaar.

The chewing of betel nut requires more apparatus and makes greater demands on a man's time and personal care than the smoking of tobacco or any of the allied vices. To cut the nut neatly an instrument is used like an enormous pair of nutcrackers with a sharp cutting edge. The lime should be made from oyster shells and it must be freshly burned and slaked. Exposure to the air soon spoils it, so a small, air-tight tin box is required to keep it in. Lastly, the betel leaf must be fresh, and in a hot climate green leaves do not keep their freshness without special care.

But the necessity for attending to all these matters no doubt adds greatly to the interest which a chewer of *_pan supari_* is able to find in life. Moreover, his taste and wealth have scope for expression in the elegance of his appointments, and by these you may generally judge of a man's rank and means. A well-to-do Mahratta cartman will carry in his waistband a sort of bijou hold-all of coloured cloth, which, when unrolled, displays neat pockets of different forms for the leaves, broken nuts, lime box, spices, etc.; but a native magistrate, who goes about attended by a peon and need not carry his own things, will have a box of polished brass, or even silver, divided into compartments.

One may easily infer that to meet such a universal want there must be a correspondingly great industry, and the cultivation of the betel nut is indeed a great industry, and a most beautiful one. Surely since Adam first began to till the ground in the sweat of his face, his children have found no tillage so Eden-like as this. India has produced no Virgil to take the common charms of a farmer's life and put them into immortal song, so we search her literature in vain to learn how her simple, rustic people feel about these things, and in what we see of their life there is little sign that they feel about them at all; but when the Englishman, wandering, gun in hand, up a steaming valley among forest-clad hills, suddenly finds the path lead him into a betel nut garden, with no wire fence, or locked gate, or inhospitable notice threatening prosecution to trespassers, he feels as if he had entered some region of bliss where the earthly senses are too narrow for the delights that press for entrance to the soul.

In the first place, the areca nut palm is almost, if not altogether, the most graceful of all its graceful tribe. Unlike the coconut, it grows as erect as a flagstaff, and the effect of this is increased by its extreme

slenderness, for though it may attain a height of fifty feet, its diameter scarcely exceeds six inches. At the top of the stem there is a sheath of polished green, from the top of which again there issues a tuft of the most ethereal, feathery fronds, diverging and drooping with matchless grace. Under these hang the clusters of reddish-brown nuts.

As the areca nut will not grow except in places that are at once moist and warm, the gardens are generally situated in narrow valleys and dells among hills, with little streams of limpid water rippling past them or through them. The steaming heat of such situations can only be realised by one who has traversed them at noon in the month of May in pursuit of sport or natural history. But the palms grow so close together that their fronds mingle into an almost unbroken roof, through which the sun can scarcely peep, and every air that enters there has the heat charmed out of it, and as it wanders among the broad, aromatic leaves of the betel vines which wreath the pillars of that fairy hall, it is softened with balmy moisture, and laden with fragrance and scent to woo your senses in perfect tune with the tinkling music of the water and the enchanting beauty of the whole scene.

In a large hut among these shades, with bananas waving their banner leaves over the smooth and well-swept yard in front, where the children play, lives the family that cultivates the garden. They are a sect of Brahmins, but very unbrahminical, unsophisticated, industrious, temperate, kind and hospitable. Other Brahmins despise them and wish to deny them the name, because they have soiled their priestly hands with agriculture. But they return the contempt, and walk in the way of their fathers, a way which leads them among the purest pleasures that this life affords and keeps them from many of its more sordid temptations. Perhaps the picture has its darker shades too. I have not seen them, and why should I look for them?

The betel nut harvest is something of the nature of an acrobatic performance, for the crop is not on the ground, but on poles forty or fifty feet high. This is the manner in which it is gathered. The farmer, attended by his wife, goes out, and slipping a loose loop of rope over his feet to keep them together, so that when he gets the trunk of a tree between them it may fit like a wedge, he clasps one of the trees with his hands and goes up at a surprising rate. He carries with him a long rope, and when he reaches the top, he fastens one end of it to the tree, and throws the other to his wife, who goes to a distance and draws it tight. Then the man breaks off a heavy bunch of ripe nuts, and hitching it on the rope lets it go. It shoots down with such velocity that it would knock his wife down did she not know how to dodge it skilfully and break its force in a bend of the rope.

When all the bunches are on the ground, the man begins to sway his body violently till the tender and supple palm is swinging like a pendulum and almost striking the trees on either side. Watching his opportunity, the man grasps one of these and transfers himself to it with the nimbleness of a monkey. In this way he makes an aerial journey round the garden and avoids the fatigue of climbing up and down every separate tree.

The gathered betel nuts soon find their way to the warehouses of fat Bunias at the coast ports, where they are peeled and prepared and sorted and piled in great heaps according to quality, and finally shipped in pattimars and cotias and coasting steamers, and so disseminated over the length and breadth of the land to be the comforters of poor and rich.

It only remains to say that the betel nut is not used in the East for tooth-powder, though the natives believe that the practice of chewing it saves them from toothache. When they use any dentifrice it is generally charcoal, and their toothbrush is either the forefinger or a fibrous stick chewed at the end till it becomes like a stiff paintbrush. But whatever he may use for the purpose, the Hindu cleans his teeth every morning, and that most thoroughly, before he will allow food to pass his lips, and the whiteness and soundness of his teeth are an object of envy to Englishmen.

XVII

A HINDU FESTIVAL

Poets may sing,

"Let the ape and tiger die,"

but they are not quite dead yet, only caged, and where is the man in whose bosom there lurks no wish that he could open the door just once in a way and let them have a frisk? In the East there is no hypocrisy about the matter. The tiger's den is barred and locked, and the British Government keeps the key, but the ape has an appointed day in the year on which he shall have his outing. They call it the _Holi_, which is a misnomer, for of all Hindu festivals this is the most unholy; but of that anon.

I asked a Brahmin what this festival commemorated, and he said he did not know. He knew how to observe it, which was the main thing. Of course, there is an explanation of it in Hindu mythology, which the Brahmin ought to have known, and very probably did know, but was ashamed to tell. But it matters little, for we may be well assured that the explanation was invented to sanctify the festival long after the festival itself came into vogue, as has been the case with some of our most Christian holidays.

The Holi comes round about the time of the vernal equinox, when victory declares for day and warmth in its long struggle with night and cold. Then Nature rises and shakes herself as Samson rose and shook himself and snapped the seven new cords that bound him, as tow is snapped when it smells the fire. Then "the wanton lapwing gets himself another crest," and then also the young Hindu's fancy lightly turns to thoughts of love; and so it came about quite naturally that, looking around, among his plentiful gods, for a deity who might fitly be invited to preside over his lusty rejoicings at this season, he pitched upon Krishna.

For Krishna, when he was upon this earth, was an amorous youth, and his goings on with certain milkmaids were such as would shock Mrs. Grundy at the present day even in India, supposing he had been only a man. But he was a god, therefore his doing a thing made it right, and, where he presides, his worshippers may do as he did. Consequently, man, woman and child of every caste and grade give themselves licence, during these days of the Holi, to act and speak in a manner that would be scandalous at any other time of the year.

Hindus of the better sort are beginning to be outwardly, and some of

them, I hope, inwardly, rather ashamed of this festival, and it is time they were. Yet there is always something cheering in the sight of untutored mirth and exuberant animal joy breaking out and triumphing over the sadness of life and the monotony of lowly toil; and I confess that I find a pleasing side to this festival of the Holi. I like it best as I have seen it in a fishing village on the west coast of India.

At first sight you would not suspect the black and brawny Koli of much gaiety, but there is deep down in him a spring of mirth and humour which, "when wine and free companions kindle him," can break out into the most boisterous hilarity and jocundity and even buffoonery, throwing aside all trammels of convention and decorum. His women folk, too, though they do not go out of their proper place in the social system, assert themselves vigorously within it, and are gay and vivacious and well aware of their personal attractions. So the Koli village looks forward to the Holi and makes timely preparation for it.

The night before the _poornima_, or full moon, of the month Phalgun arrives, each trim fishing boat is stored with flowers and leafy branches, all the flags that can be mustered and a drum; then the whole village goes a-fishing. Next morning each housewife gets up early to decorate her house and trick out herself and her children. For though the Koli is the most naked of men, his whole workaday costume consisting of one rag about equal in amplitude to half a good pocket-handkerchief, his wife is the most dressy of women. She is always well-dressed even on common days. The bareness of her limbs may perhaps shock our notions of propriety at first, for, being a mud-wader of necessity, like the stork and the heron, she girds her garments about her very tightly indeed; but this only sets off her wonderfully erect and athletic figure, while her well-set head looks all the nicer that it has no covering except her own neatly-bound hair. She never draws her _saree_ coyly over her head, like other native women, when she meets a man. On this day there is no change in the fashion of her costume (that never changes), but she puts on her brightest dress, blue, or red, or lemon yellow, with all her private jewellery, and decks her hair with a small chaplet of bright flowers.

Her children are tricked out with more fancy. The little brown girl, who yesterday had not one square inch of cloth on the whole of her tiny person, comes out a _petite_ miss in a crimson bodice and a white skirt, with her shining black hair oiled and combed and plaited and decked with flowers, and her neck and arms and feet twinkling with ornaments. Her brother of six or seven looks as if he were going to a fancy-dress ball in the character of His Highness the Holkar. His small head is set in a great three-cornered Maratha turban, and his body, a stranger to the feel of clothes, is masked in a resplendent purple jacket. The young men of the village, such of them as are not gone a-fishing, have donned clean white jackets. Beyond that they will not go, contemning effeminacy.

About nine o'clock, when the sun is now well up, the distant sound of a tom-tom is heard, and the first of the returning fleet of _muchwas_ appears at the mouth of the creek. A long line of red and white flags extends from the top of the mainyard to the helm and streamers flutter from the mastheads. A monster bouquet of marigolds is mounted on the bowsprit, branches of trees are stuck about in all possible situations, and three or four large fishes hang from the bow, trailing their tails in the water. With the exception of the man at the helm, who sits stolid, minding his business, and one youth who plays the tom-tom, the crew are standing in a ring, gesticulating with their arms and legs, or waving wands and branches of trees. Some have half of their faces

smear'd with red paint. If a boat passes they greet it with a shout and a sally of wit or ribaldry. The other *_muchwas_* follow close behind, with every inch of white sail spread and all a-flutter with flags and streamers: it would be difficult to imagine a prettier spectacle, and the tom-toming and the happiness beaming on the faces of the crews are almost infectious. One feels almost compelled to wave one's hat and cry, "Hip, hip, hooray!"

The boats come to shore, and then there ought to be a tumbling out of the silvery harvest and a gathering of women and a strife indescribable of shrill tongues, and then a long procession of wives and daughters trotting to market, each balancing a great, dripping basket on her comely head, while the husbands and fathers go home to eat and sleep. But there is none of that to-day. The silvery harvest may go to destruction and the husbands and fathers can do without sleep for once. The children are taken on board in all their finery, and friends join and musicians with their instruments. Then all sails are spread again and the boats start for a circuit round the harbour. The wind blows fiercely from the north, and each buoyant *_muchwa_* scuds along at a fearful pace, heeling over until the rippling water fingers the edge of the gunwale as if it were just getting ready to leap over and take possession. But the hilarious Koli balances himself on the sloping thwarts and jumps and sings and claps his hands, while the pipes screech and the drums rattle. Twice, or three times, does the whole fleet go out over the bar and wheel and return, each boat racing to be first, with no more sense of danger than a porpoise at play.

At last they have had enough. The sails are furled and the boats beached, the big fishes are taken down from the bows, and the whole crowd, with their trophies and garlands, dance their way to the village. There it is better that we leave them. To-night great fires will be lighted in the middle of the main road and capacious pots of toddy will be at hand, and every merry Koli will get hilariously drunk and do and say things which we had better not see and hear. And the children will look on and try to imitate their elders. And women will find it best to keep out of the way for the sake of their pretty dresses, if there were no better reason. For pots of water dyed crimson with *_goolal_* powder are ready, and everybody has licence to splash everybody when he gets a chance. Any time during the next two or three days you may find your own servants coming home dappled with red.

So the ape has his fling. And the tiger is lurking not far behind. In each of those fires it is the proper thing to roast a cock, throwing him in alive. If the fire is a great one, a general village fire, then it is still greater fun to throw in a live goat. But the worst of these ceremonies are happily going out of fashion. For the English law is stern, and the *_sahibs_* have strange and quixotic notions about cruelty to animals, and although they are far away on tour at this season and no native officer would voluntarily interfere with an immemorial custom, still the tiger walks in fear in these days and the Koli is often content to roast a coconut as proxy for a cock or a goat.

XVIII

INDIAN POVERTY

THE STANDARD OF LIVING

When Mr. Keir Hardie was in India he satisfied himself that the standard of living among the working classes in India has been deteriorating. This is interesting psychologically, and one would like to know by what means Mr. Keir Hardie attained to satisfaction on such a great and important question. Doubtless he had the ungrudging assistance of Mr. Chowdry.

The poverty of India has for a good many years been a handy weapon, like the sailor's belaying pin, for everyone who wanted to "have at" our administration of that country; and if "a lie which is half a truth is ever the blackest of lies," then this one must be as black as Tartarus, for it is indubitably more than half a truth. The common field-labourer in India is about as poor as man can be. He is very nearly as poor as a sparrow. His hut, built by himself, is scarcely more substantial or permanent than the sparrow's nest, and his clothing compares very unfavourably with the sparrow's feathers. The residue of his worldly goods consists of a few cooking pots and, it must be admitted, a few ornaments on his wife.

But a sparrow is usually well fed and quite happy. It has no property simply because it wants none. If it stored honey like the busy bee, or nuts like the thrifty squirrel, it would be a prey to constant anxiety and stand in hourly danger of being plundered of its possessions, and perhaps killed for the sake of them. Therefore to speak of a Hindu's poverty as if it certainly implied want and unhappiness is mere misrepresentation born of ignorance. In all ages there have been men so enamoured of the possessionless life that they have abandoned their worldly goods and formed brotherhoods pledged to lifelong poverty. The majority of religious beggars in India belong to brotherhoods of this kind, and are the sturdiest and best-fed men to be seen in the country, especially in time of famine.

But the Hindu peasant is not a begging friar, and may be supposed to have some share of the love of money which is common to humanity; so it is worth while to inquire why he is normally so very poor. There are two reasons, both of which are so obvious and have so often been pointed out by those who have known him best, that there is little excuse for overlooking them. The first of them is thus stated in Tennant's *Indian Recreations*, written in 1797, before British rule had affected the people of India much in one direction or another. "Industry can hardly be ranked among their virtues. Among all classes it is necessity of subsistence and not choice that urges to labour; a native will not earn six rupees a month by working a few hours more, if he can live upon three; and if he has three he will not work at all," Such was the Hindu a century ago in the eyes of an observant and judicious man, studying him with all the sympathetic interest of novelty, and such he is now.

The other reason for the chronic poverty of the Indian peasant is that, if he had money beyond his immediate necessity, he could not keep it. It is the despair of the Government of India and of every English official who endeavours to improve his condition that he cannot keep his land, or his cattle, or anything else on which his permanent welfare depends. The following extract from *The Reminiscences of an Indian Police Official* gives a lively picture of the effect of unaccustomed wealth, not on peasants, but on farmers owning land and cattle and used to something like comfort.

"Yellapa, like all cotton growers in that part of the Western Presidency, profited enormously by the high price of the staple during the American war. Silver was poured into the country (literally) in

crores (millions sterling), and cultivators who previously had as much as they could do to live, suddenly found themselves possessed of sums their imagination had never dreamt of. What to do with their wealth, how to spend their cash was their problem. Having laden their women and children with ornaments, and decked them out in expensive _sarees_, they launched into the wildest extravagance in the matter of carts and trotting bullocks, going even as far as silver-plated yokes and harness studded with silver mountings. Even silver tyres to the wheels became the fashion. Twelve and fifteen rupees were eagerly paid for a pair of trotting bullocks. Trotting matches for large stakes were common; and the whole rural population appeared with expensive red silk umbrellas, which an enterprising English firm imported as likely to gratify the general taste for display. Many took to drink, not country liquors such as had satisfied them previously, but British brandy, rum, gin, and even champagne."

A few pages further on the author tells us of the ruin by debt and drunkenness of the families which had indulged in these extravagances. The fact is that to keep for to-morrow what is in the hand to-day demands imagination, purpose and self-discipline, which the Hindu working man has not. He is the product of centuries, during which his rulers made the life of to-morrow too uncertain, while his climate made the life of to-day too easy. No outward applications will alone cure his poverty, because it is a symptom of an inward disease.

When a healthier state of mind shall awaken an appetite for comforts and conveniences, and create necessities unknown to his fathers, then degrading poverty will no longer be possible as the common lot. And it was to be hoped that the British rule would in time have this happy effect. Tennant evidently thought that it had begun to do so even in his day. "The existence," he says, "of a regular British Government is but a recent circumstance; yet in the course of a few years complete security has been afforded to all of its dependants; many new manufactures have been established, many more have been extended to answer the demands of a larger exportation. We have therefore conferred upon our Asiatic subjects an increase of security, of industry and of produce, and of consequent greater means of enjoyment."

It is therefore a very grave charge that Mr. Keir Hardie brings against the British Administration when he says, a century after these words were written, that the standard of living among the Hindu peasantry has deteriorated. Happily there does not appear to have been a close relation between facts and Mr. Keir Hardie's conclusions during his Indian tour, so we may continue to put our confidence in the many hopeful indications that exist of a distinct improvement in the ideal of life which has so long prevailed among our poor Indian fellow-subjects. The rise in the wages of both skilled and unskilled labour during even the last thirty years, especially in and near important towns, has been most remarkable.

It is more to the point to know what the labourer is able to do and actually does with his wages, and here the returns of trade and the reports of the railway companies, post office and savings bank have striking evidence to offer. They are published annually, and anyone, even Mr. Keir Hardie, may consult them who likes his facts in statistical form. For those who live in India there are abundant evidences with more colour in them. Some thirty years ago, or more, there was a steamship company in Bombay owning two small steamers which carried passengers across the harbour. By degrees it extended its operations and increased its fleet until it had a daily service of fast steamers, with accommodation for nearly a thousand third-class

passengers, which went down the coast as far as Goa, calling at every petty port on the way. The head of the firm retired some years ago, having made his pile. Seldom has a more profitable enterprise been started in Bombay. And whence did the profits come? From the pockets of Hindu peasants. The Mahrattas of the Ratnagiri District supply most of the "labour" required in Bombay, and for these the company spread its nets. And by their incessant coming and going it amassed its wealth.

Heads of mercantile firms and Government offices, and all who have to deal with the Mahratta "puttiwala," viewed its success without surprise. Though always grumbling at his wages, he never appears to be without the means and the will to travel. A marriage, a religious ceremony in his family, or the death of some relative, requires his immediate presence in his village, and he asks for leave. If he cannot get it otherwise, he offers to forfeit his pay for the period. If it is still refused, he resigns his situation and goes. This does not indicate pinching poverty; there must be some margin between such men and starvation. And a saunter through their villages will amply confirm such a surmise.

It is no uncommon thing in these coast villages to see that foreign luxury, a chair, perhaps even an easy-chair, in the verandah of a common Bhundaree (toddy-drawer). The rapidly growing use of chairs, glass tumblers, enamelled ironware, soda-water and lemonade, patent medicines, and even cheap watches, declares plainly that the young Hindu of the present day does not live as his fathers did. Men go better dressed, and their children are clothed at an earlier age. The advertisements in vernacular languages that one meets with, circulated and posted up in all sorts of places, tell the same tale convincingly; for the advertiser knows his business, and will not angle where no fish rise.

Nor are large towns like Bombay the only places where the Hindu peasant widens his horizon and acquires new tastes. In the Fiji Islands there are about 22,000 natives of India who went out as indentured coolies with the option of returning at the end of five years at their own expense, or after ten years at that of Government. When these men come home, they bring with them new tastes and new ideas, as well as the habit of saving money and thousands of rupees saved during their short exile. In Mauritius and South Africa the Hindu working man is learning the same lessons. When he gets back to the sleepy life of his native village, he is not likely to settle down contentedly at the level from which he started.

On every hand, in short, forces are at work stirring discontent in the breasts of the younger generation with the existence which was the heritage of their fathers. These forces operate from the outside, and the mass is large and very inert: it would be rash to say that in the heart of it there are not still millions who regard a monotonous struggle for a bare existence as their portion from Providence. But when a man who has travelled in India for half a cold season tells us that the standard of living in India has deteriorated, we are tempted to quote from Sir Ali Baba: "What is it that these travelling people put on paper? Let me put it in the form of a conundrum. Q. What is it that the travelling M.P. treasures up and the Anglo-Indian hastens to throw away? A. Erroneous hazy, distorted impressions." "One of the most serious duties attending a residence in India is the correcting of those misapprehensions which your travelling M.P. sacrifices his bath to hustle upon paper."

BORROWED INDIAN WORDS

Of the results of the Roman supremacy in Britain none have been so permanent as their influence on our language. No doubt this was less due to any direct effect that their residence among the Britons had at the time on vernacular speech than to the fact that, for many centuries after their departure, Latin was the language, throughout Europe, of literature and scholarship. Our supremacy in India is acting on the languages of that country in both ways, and though it has scarcely lasted half as long yet as the Roman rule in Britain, English already bids fair to become one day the common tongue of the Hindus. But there is also a current flowing the other way, comparatively insignificant, but curious and interesting.

Few persons in England are aware how often they use words of Indian origin in common speech. In attempting to give a list of these I will exclude the trade names of articles of Indian produce or manufacture, which have no literary interest, and also words which indicate objects, ideas or customs that are not English, and therefore have no English equivalents, such as "tom-tom," "sepoy" and "suttee," I will also omit Indian words, such as "bundobust," and "griffin," which are used by writers like Thackeray in the same way in which French terms are commonly introduced into English composition.

Of course, it is not always possible to draw a hard and fast line. There are words which first came into England as the trade names of Indian products, but have extended their significance, or entirely changed it, and taken a permanent place in the English language. Pepper still means what it originally meant, but it has also become a verb. Another example is Shawl, a word which has lost all trace of its Oriental origin. It is a pure Hindustani word, pronounced "Shal," and indicating an article thus described in the seventeenth century by Thevenot, as quoted in Hobson-Jobson:--"Une Chal, qui est une maniere de toilette d'une laine tres fine qui se fait a Cachmir." With the article to England came the name, but soon spread itself over all fabrics worn in the same fashion, except the Scotch plaid, which held its own.

Somewhat similar is Calico, originally a fine cotton cloth imported from Calicut. This place is called Calicot by the natives, and may have dropped the final T through the influence of French dressmakers. Chintz is another example, being the Hindustani word "cheent," which means a spotted cotton cloth. In trade fabrics are always described in the plural, and the Z in Chintz is no doubt a perversion, through misunderstanding, of the terminal S. Lac is another Indian word which has retained its own meaning, but it has gone beyond it and given rise to a verb "to lacquer."

With these perhaps should be mentioned Pyjamas and Shampoo, both of which have undergone strange perversions. Pyjama is an Indian name for loose drawers or trousers tied with a cord round the waist, such as Mussulmans of both sexes wear. In India the Pyjama was long ago adopted, with a loose coat to match, as a more decent and comfortable costume than the British nightshirt, and when Anglo-Indians retired they brought the fashion home with them, English tailors called the whole costume a "Pyjama suit," but the second word was soon dropped and the first improved into the plural number.

"Shampoo" comes from a verb "champna," to press or squeeze, and the

imperative, "champo," as often happens, was the form in which it became English. Forbes, in his *“Oriental Memoirs”*, writes of "the effects of opium, champoing and other luxuries indulged in by Oriental sensualists." When the medical profession in England began to patronise the practice, it assumed a more dignified name, "massage," and the old word was relegated to the hairdressers, who appropriated it to the washing of the head, an operation with which the word has no proper relation at all.

There are two words of doubtful derivation, which may be mentioned in this connection. Cot, in the sense of a light bed, or cradle, is not much used in England, but is given in Webster's and other dictionaries, with the same Saxon derivation, as the "cot beside the hill" which the poet Rogers sighed for. If this is correct, then it is at least curious that the word should have almost gone out of use in England and revived in India from a distinct root. There it is the term in every-day use for any rough bedstead, such as the natives sleep on and call a khat. The average Englishman cannot aspirate a K, and never pronounces the Indian A aright unless it is followed by an R, so khat becomes "cot" by a process of which there are many illustrations.

The other doubtful word mentioned above is Teapoy. It is defined in the dictionaries as an ornamental table, with a folding top, containing caddies for holding tea, but in India, where it is in much more general use than it is in England, it signifies simply a light tripod table and almost certainly comes from "teenpai" (three-foot), corresponding to another common word, "charpai" (four-foot), which means a native bedstead. The fact that it is sometimes spelled Tepoy confirms this, but the other spelling is commoner, and appears to have led to its getting a special meaning connected with tea among furniture sellers.

Cheroot, Bangle, Curry and Kidgerree are examples of words which have come to us with the things which they signify, and retain their meaning though the thing itself may have undergone some change. Curry as made in England is sometimes not recognisable by a new arrival from India, and Kidgerree is applied to a preparation of rice and fish, whereas it means properly a dish of rice, split peas and butter, or "ghee." Fish may be eaten with it, but is not an ingredient of it. Bazaar may be classed with these words, and also Polo, which is merely the name for a polo ball in the language of one of the Himalayan tribes from whom we learned the game. It is said to have been played in England for the first time at Aldershot in 1871.

More interest attaches to Gymkhana, for neither the word nor the thing which it signifies is Indian, though both originated in India, and the derivation of the word is unknown, though it is scarcely fifty years old. Several hybrid derivations have been suggested, none of them probable, and I lean to the suggestion that the starting-point of the word may have been "jumkhana", a term which, though it is not in Forbes's *“Hindustani Dictionary”*, I have heard a native apply to a large cotton carpet, such as native acrobats, or wrestlers, might spread when about to give a performance. Our use of the words Arena, Stage, Boards, Footlights, etc., shows how easily a carpet might give name to a place of meeting for athletic exercises.

There is another class of words which have come into England through returned Anglo-Indians and spread by their own merit. One of these is Loot. The dictionary says that it means "to plunder," but it holds more than that or any equivalent English word. Perhaps it has scarcely risen above the level of slang yet, but the phrase "to run amuck" is classical, having been used by both Pope and Dryden. The pedantic

attempt made by some writers to change the common way of writing it because the original Malay term is a single word, "amok," comes too late in view of Dryden's line,

"And runs an Indian muck at all he meets."

Cheese, in the sense of a thing, or rather of "the very thing," must be ranked as slang too, though very common. The slang dictionaries give fanciful derivations from Anglo-Saxon roots, or suggest that it is a perversion of "chose"; but it is a common Hindustani word for a thing, and when an Englishman in India finds some article which exactly suits his purpose and exclaims, "Ah! that's the cheese," no one needs to ask the derivation. If it did not come to us directly from India, then it came through the gipsies, for it is one of the many Hindustani words which occur in their language. Another word that came from India indirectly is Caste, but it is of Portuguese origin. The early Portuguese writers applied it ("casta") to the hereditary division of Hindu society, and the English adopted it. It has now become indispensable. We have no other word that could take its place in the lines,

Her manners had not that repose
Which stamps the caste of Vere de Vere.

I must close with two familiar words which have been so long with us that few who use them ever suspect that they came from the East--namely, Punch and Toddy. The Rev. J. Ovington, who sailed to Bombay in 1689, in the ship that carried the glad news of the coronation of William and Mary, tells us that, in the East India Company's chief factory at Surat, the common table was supplied with "plenty of generous Sherash (Shiraz) wine and arak Punch," Arrack (properly "Urk"), sometimes abbreviated to Rack, means any distilled spirit, or essence, but is commonly used to distinguish country liquor from imported spirits. The Company's factors drank it because European wines and beer were at that time very expensive in India, and to reconcile it to their palates they made it into a brew called Punch, from the Indian word "panch," meaning five, because it contained five ingredients--viz. arrack, hot water, limes, sugar and spice. This was the ordinary drink of poor Englishmen in India for a longtime, and public "Punch-houses" existed in every settlement of the East India Company.

Now, one of the principal substances from which country liquor is distilled is palm juice, the native name for which, "tadee," has been perverted into "toddy" (as in the case of "cot" above-mentioned), and "toddy punch" meant the same thing as "arrack punch." Returning Anglo-Indians brought the receipt for making this brew to England, and lovers of Vanity Fair will remember how the whole course of that story was changed by the bowl of "rack punch" which Joseph Sedley ordered at Vauxhall, where "everybody had rack punch." How soon both the brew and its Indian name took firm root and spread among us appears from the fact that, at the Holy Fair described by Burns in the century before last, the lads and lasses sit round a table and "steer about the toddy."

End of the Project Gutenberg EBook of Concerning Animals and Other Matters
by E.H. Aitken, (AKA Edward Hamilton)

*** END OF THIS PROJECT GUTENBERG EBOOK CONCERNING ANIMALS ***

***** This file should be named 10962.txt or 10962.zip *****

This and all associated files of various formats will be found in:

<http://www.gutenberg.net/1/0/9/6/10962/>

Produced by Garrett Alley and the Online Distributed Proofreading Team

Updated editions will replace the previous one--the old editions will be renamed.

Creating the works from public domain print editions means that no one owns a United States copyright in these works, so the Foundation (and you!) can copy and distribute it in the United States without permission and without paying copyright royalties. Special rules, set forth in the General Terms of Use part of this license, apply to copying and distributing Project Gutenberg-tm electronic works to protect the PROJECT GUTENBERG-tm concept and trademark. Project Gutenberg is a registered trademark, and may not be used if you charge for the eBooks, unless you receive specific permission. If you do not charge anything for copies of this eBook, complying with the rules is very easy. You may use this eBook for nearly any purpose such as creation of derivative works, reports, performances and research. They may be modified and printed and given away--you may do practically ANYTHING with public domain eBooks. Redistribution is subject to the trademark license, especially commercial redistribution.

*** START: FULL LICENSE ***

THE FULL PROJECT GUTENBERG LICENSE

PLEASE READ THIS BEFORE YOU DISTRIBUTE OR USE THIS WORK

To protect the Project Gutenberg-tm mission of promoting the free distribution of electronic works, by using or distributing this work (or any other work associated in any way with the phrase "Project Gutenberg"), you agree to comply with all the terms of the Full Project Gutenberg-tm License (available with this file or online at <http://gutenberg.net/license>).

Section 1. General Terms of Use and Redistributing Project Gutenberg-tm electronic works

1.A. By reading or using any part of this Project Gutenberg-tm electronic work, you indicate that you have read, understand, agree to and accept all the terms of this license and intellectual property (trademark/copyright) agreement. If you do not agree to abide by all the terms of this agreement, you must cease using and return or destroy all copies of Project Gutenberg-tm electronic works in your possession. If you paid a fee for obtaining a copy of or access to a Project Gutenberg-tm electronic work and you do not agree to be bound by the terms of this agreement, you may obtain a refund from the person or entity to whom you paid the fee as set forth in paragraph 1.E.8.

1.B. "Project Gutenberg" is a registered trademark. It may only be used on or associated in any way with an electronic work by people who agree to be bound by the terms of this agreement. There are a few things that you can do with most Project Gutenberg-tm electronic works even without complying with the full terms of this agreement. See

paragraph 1.C below. There are a lot of things you can do with Project Gutenberg-tm electronic works if you follow the terms of this agreement and help preserve free future access to Project Gutenberg-tm electronic works. See paragraph 1.E below.

1.C. The Project Gutenberg Literary Archive Foundation ("the Foundation" or PGLAF), owns a compilation copyright in the collection of Project Gutenberg-tm electronic works. Nearly all the individual works in the collection are in the public domain in the United States. If an individual work is in the public domain in the United States and you are located in the United States, we do not claim a right to prevent you from copying, distributing, performing, displaying or creating derivative works based on the work as long as all references to Project Gutenberg are removed. Of course, we hope that you will support the Project Gutenberg-tm mission of promoting free access to electronic works by freely sharing Project Gutenberg-tm works in compliance with the terms of this agreement for keeping the Project Gutenberg-tm name associated with the work. You can easily comply with the terms of this agreement by keeping this work in the same format with its attached full Project Gutenberg-tm License when you share it without charge with others.

1.D. The copyright laws of the place where you are located also govern what you can do with this work. Copyright laws in most countries are in a constant state of change. If you are outside the United States, check the laws of your country in addition to the terms of this agreement before downloading, copying, displaying, performing, distributing or creating derivative works based on this work or any other Project Gutenberg-tm work. The Foundation makes no representations concerning the copyright status of any work in any country outside the United States.

1.E. Unless you have removed all references to Project Gutenberg:

1.E.1. The following sentence, with active links to, or other immediate access to, the full Project Gutenberg-tm License must appear prominently whenever any copy of a Project Gutenberg-tm work (any work on which the phrase "Project Gutenberg" appears, or with which the phrase "Project Gutenberg" is associated) is accessed, displayed, performed, viewed, copied or distributed:

This eBook is for the use of anyone anywhere at no cost and with almost no restrictions whatsoever. You may copy it, give it away or re-use it under the terms of the Project Gutenberg License included with this eBook or online at www.gutenberg.net

1.E.2. If an individual Project Gutenberg-tm electronic work is derived from the public domain (does not contain a notice indicating that it is posted with permission of the copyright holder), the work can be copied and distributed to anyone in the United States without paying any fees or charges. If you are redistributing or providing access to a work with the phrase "Project Gutenberg" associated with or appearing on the work, you must comply either with the requirements of paragraphs 1.E.1 through 1.E.7 or obtain permission for the use of the work and the Project Gutenberg-tm trademark as set forth in paragraphs 1.E.8 or 1.E.9.

1.E.3. If an individual Project Gutenberg-tm electronic work is posted with the permission of the copyright holder, your use and distribution must comply with both paragraphs 1.E.1 through 1.E.7 and any additional terms imposed by the copyright holder. Additional terms will be linked to the Project Gutenberg-tm License for all works posted with the

permission of the copyright holder found at the beginning of this work.

1.E.4. Do not unlink or detach or remove the full Project Gutenberg-tm License terms from this work, or any files containing a part of this work or any other work associated with Project Gutenberg-tm.

1.E.5. Do not copy, display, perform, distribute or redistribute this electronic work, or any part of this electronic work, without prominently displaying the sentence set forth in paragraph 1.E.1 with active links or immediate access to the full terms of the Project Gutenberg-tm License.

1.E.6. You may convert to and distribute this work in any binary, compressed, marked up, nonproprietary or proprietary form, including any word processing or hypertext form. However, if you provide access to or distribute copies of a Project Gutenberg-tm work in a format other than "Plain Vanilla ASCII" or other format used in the official version posted on the official Project Gutenberg-tm web site (www.gutenberg.net), you must, at no additional cost, fee or expense to the user, provide a copy, a means of exporting a copy, or a means of obtaining a copy upon request, of the work in its original "Plain Vanilla ASCII" or other form. Any alternate format must include the full Project Gutenberg-tm License as specified in paragraph 1.E.1.

1.E.7. Do not charge a fee for access to, viewing, displaying, performing, copying or distributing any Project Gutenberg-tm works unless you comply with paragraph 1.E.8 or 1.E.9.

1.E.8. You may charge a reasonable fee for copies of or providing access to or distributing Project Gutenberg-tm electronic works provided that

- You pay a royalty fee of 20% of the gross profits you derive from the use of Project Gutenberg-tm works calculated using the method you already use to calculate your applicable taxes. The fee is owed to the owner of the Project Gutenberg-tm trademark, but he has agreed to donate royalties under this paragraph to the Project Gutenberg Literary Archive Foundation. Royalty payments must be paid within 60 days following each date on which you prepare (or are legally required to prepare) your periodic tax returns. Royalty payments should be clearly marked as such and sent to the Project Gutenberg Literary Archive Foundation at the address specified in Section 4, "Information about donations to the Project Gutenberg Literary Archive Foundation."
- You provide a full refund of any money paid by a user who notifies you in writing (or by e-mail) within 30 days of receipt that s/he does not agree to the terms of the full Project Gutenberg-tm License. You must require such a user to return or destroy all copies of the works possessed in a physical medium and discontinue all use of and all access to other copies of Project Gutenberg-tm works.
- You provide, in accordance with paragraph 1.F.3, a full refund of any money paid for a work or a replacement copy, if a defect in the electronic work is discovered and reported to you within 90 days of receipt of the work.
- You comply with all other terms of this agreement for free distribution of Project Gutenberg-tm works.

1.E.9. If you wish to charge a fee or distribute a Project Gutenberg-tm electronic work or group of works on different terms than are set forth in this agreement, you must obtain permission in writing from both the Project Gutenberg Literary Archive Foundation and Michael Hart, the owner of the Project Gutenberg-tm trademark. Contact the Foundation as set forth in Section 3 below.

1.F.

1.F.1. Project Gutenberg volunteers and employees expend considerable effort to identify, do copyright research on, transcribe and proofread public domain works in creating the Project Gutenberg-tm collection. Despite these efforts, Project Gutenberg-tm electronic works, and the medium on which they may be stored, may contain "Defects," such as, but not limited to, incomplete, inaccurate or corrupt data, transcription errors, a copyright or other intellectual property infringement, a defective or damaged disk or other medium, a computer virus, or computer codes that damage or cannot be read by your equipment.

1.F.2. LIMITED WARRANTY, DISCLAIMER OF DAMAGES - Except for the "Right of Replacement or Refund" described in paragraph 1.F.3, the Project Gutenberg Literary Archive Foundation, the owner of the Project Gutenberg-tm trademark, and any other party distributing a Project Gutenberg-tm electronic work under this agreement, disclaim all liability to you for damages, costs and expenses, including legal fees. YOU AGREE THAT YOU HAVE NO REMEDIES FOR NEGLIGENCE, STRICT LIABILITY, BREACH OF WARRANTY OR BREACH OF CONTRACT EXCEPT THOSE PROVIDED IN PARAGRAPH F3. YOU AGREE THAT THE FOUNDATION, THE TRADEMARK OWNER, AND ANY DISTRIBUTOR UNDER THIS AGREEMENT WILL NOT BE LIABLE TO YOU FOR ACTUAL, DIRECT, INDIRECT, CONSEQUENTIAL, PUNITIVE OR INCIDENTAL DAMAGES EVEN IF YOU GIVE NOTICE OF THE POSSIBILITY OF SUCH DAMAGE.

1.F.3. LIMITED RIGHT OF REPLACEMENT OR REFUND - If you discover a defect in this electronic work within 90 days of receiving it, you can receive a refund of the money (if any) you paid for it by sending a written explanation to the person you received the work from. If you received the work on a physical medium, you must return the medium with your written explanation. The person or entity that provided you with the defective work may elect to provide a replacement copy in lieu of a refund. If you received the work electronically, the person or entity providing it to you may choose to give you a second opportunity to receive the work electronically in lieu of a refund. If the second copy is also defective, you may demand a refund in writing without further opportunities to fix the problem.

1.F.4. Except for the limited right of replacement or refund set forth in paragraph 1.F.3, this work is provided to you 'AS-IS' WITH NO OTHER WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTIES OF MERCHANTABILITY OR FITNESS FOR ANY PURPOSE.

1.F.5. Some states do not allow disclaimers of certain implied warranties or the exclusion or limitation of certain types of damages. If any disclaimer or limitation set forth in this agreement violates the law of the state applicable to this agreement, the agreement shall be interpreted to make the maximum disclaimer or limitation permitted by the applicable state law. The invalidity or unenforceability of any provision of this agreement shall not void the remaining provisions.

1.F.6. INDEMNITY - You agree to indemnify and hold the Foundation, the

trademark owner, any agent or employee of the Foundation, anyone providing copies of Project Gutenberg-tm electronic works in accordance with this agreement, and any volunteers associated with the production, promotion and distribution of Project Gutenberg-tm electronic works, harmless from all liability, costs and expenses, including legal fees, that arise directly or indirectly from any of the following which you do or cause to occur: (a) distribution of this or any Project Gutenberg-tm work, (b) alteration, modification, or additions or deletions to any Project Gutenberg-tm work, and (c) any Defect you cause.

Section 2. Information about the Mission of Project Gutenberg-tm

Project Gutenberg-tm is synonymous with the free distribution of electronic works in formats readable by the widest variety of computers including obsolete, old, middle-aged and new computers. It exists because of the efforts of hundreds of volunteers and donations from people in all walks of life.

Volunteers and financial support to provide volunteers with the assistance they need, is critical to reaching Project Gutenberg-tm's goals and ensuring that the Project Gutenberg-tm collection will remain freely available for generations to come. In 2001, the Project Gutenberg Literary Archive Foundation was created to provide a secure and permanent future for Project Gutenberg-tm and future generations. To learn more about the Project Gutenberg Literary Archive Foundation and how your efforts and donations can help, see Sections 3 and 4 and the Foundation web page at <http://www.pglaaf.org>.

Section 3. Information about the Project Gutenberg Literary Archive Foundation

The Project Gutenberg Literary Archive Foundation is a non profit 501(c)(3) educational corporation organized under the laws of the state of Mississippi and granted tax exempt status by the Internal Revenue Service. The Foundation's EIN or federal tax identification number is 64-6221541. Its 501(c)(3) letter is posted at <http://pglaaf.org/fundraising>. Contributions to the Project Gutenberg Literary Archive Foundation are tax deductible to the full extent permitted by U.S. federal laws and your state's laws.

The Foundation's principal office is located at 4557 Melan Dr. S. Fairbanks, AK, 99712., but its volunteers and employees are scattered throughout numerous locations. Its business office is located at 809 North 1500 West, Salt Lake City, UT 84116, (801) 596-1887, email business@pglaaf.org. Email contact links and up to date contact information can be found at the Foundation's web site and official page at <http://pglaaf.org>

For additional contact information:

Dr. Gregory B. Newby
Chief Executive and Director
gbnewby@pglaaf.org

Section 4. Information about Donations to the Project Gutenberg Literary Archive Foundation

Project Gutenberg-tm depends upon and cannot survive without wide spread public support and donations to carry out its mission of increasing the number of public domain and licensed works that can be

freely distributed in machine readable form accessible by the widest array of equipment including outdated equipment. Many small donations (\$1 to \$5,000) are particularly important to maintaining tax exempt status with the IRS.

The Foundation is committed to complying with the laws regulating charities and charitable donations in all 50 states of the United States. Compliance requirements are not uniform and it takes a considerable effort, much paperwork and many fees to meet and keep up with these requirements. We do not solicit donations in locations where we have not received written confirmation of compliance. To SEND DONATIONS or determine the status of compliance for any particular state visit <http://pglaf.org>

While we cannot and do not solicit contributions from states where we have not met the solicitation requirements, we know of no prohibition against accepting unsolicited donations from donors in such states who approach us with offers to donate.

International donations are gratefully accepted, but we cannot make any statements concerning tax treatment of donations received from outside the United States. U.S. laws alone swamp our small staff.

Please check the Project Gutenberg Web pages for current donation methods and addresses. Donations are accepted in a number of other ways including including checks, online payments and credit card donations. To donate, please visit: <http://pglaf.org/donate>

Section 5. General Information About Project Gutenberg-tm electronic works.

Professor Michael S. Hart is the originator of the Project Gutenberg-tm concept of a library of electronic works that could be freely shared with anyone. For thirty years, he produced and distributed Project Gutenberg-tm eBooks with only a loose network of volunteer support.

Project Gutenberg-tm eBooks are often created from several printed editions, all of which are confirmed as Public Domain in the U.S. unless a copyright notice is included. Thus, we do not necessarily keep eBooks in compliance with any particular paper edition.

Each eBook is in a subdirectory of the same number as the eBook's eBook number, often in several formats including plain vanilla ASCII, compressed (zipped), HTML and others.

Corrected EDITIONS of our eBooks replace the old file and take over the old filename and etext number. The replaced older file is renamed. VERSIONS based on separate sources are treated as new eBooks receiving new filenames and etext numbers.

Most people start at our Web site which has the main PG search facility:

<http://www.gutenberg.net>

This Web site includes information about Project Gutenberg-tm, including how to make donations to the Project Gutenberg Literary Archive Foundation, how to help produce our new eBooks, and how to subscribe to our email newsletter to hear about new eBooks.

EBooks posted prior to November 2003, with eBook numbers BELOW #10000,

are filed in directories based on their release date. If you want to download any of these eBooks directly, rather than using the regular search system you may utilize the following addresses and just download by the etext year.

<http://www.gutenberg.net/etext06>

(Or /etext 05, 04, 03, 02, 01, 00, 99,
98, 97, 96, 95, 94, 93, 92, 91 or 90)

EBooks posted since November 2003, with etext numbers OVER #10000, are filed in a different way. The year of a release date is no longer part of the directory path. The path is based on the etext number (which is identical to the filename). The path to the file is made up of single digits corresponding to all but the last digit in the filename. For example an eBook of filename 10234 would be found at:

<http://www.gutenberg.net/1/0/2/3/10234>

or filename 24689 would be found at:

<http://www.gutenberg.net/2/4/6/8/24689>

An alternative method of locating eBooks:

<http://www.gutenberg.net/GUTINDEX.ALL>

Livros Grátis

(<http://www.livrosgratis.com.br>)

Milhares de Livros para Download:

[Baixar livros de Administração](#)

[Baixar livros de Agronomia](#)

[Baixar livros de Arquitetura](#)

[Baixar livros de Artes](#)

[Baixar livros de Astronomia](#)

[Baixar livros de Biologia Geral](#)

[Baixar livros de Ciência da Computação](#)

[Baixar livros de Ciência da Informação](#)

[Baixar livros de Ciência Política](#)

[Baixar livros de Ciências da Saúde](#)

[Baixar livros de Comunicação](#)

[Baixar livros do Conselho Nacional de Educação - CNE](#)

[Baixar livros de Defesa civil](#)

[Baixar livros de Direito](#)

[Baixar livros de Direitos humanos](#)

[Baixar livros de Economia](#)

[Baixar livros de Economia Doméstica](#)

[Baixar livros de Educação](#)

[Baixar livros de Educação - Trânsito](#)

[Baixar livros de Educação Física](#)

[Baixar livros de Engenharia Aeroespacial](#)

[Baixar livros de Farmácia](#)

[Baixar livros de Filosofia](#)

[Baixar livros de Física](#)

[Baixar livros de Geociências](#)

[Baixar livros de Geografia](#)

[Baixar livros de História](#)

[Baixar livros de Línguas](#)

[Baixar livros de Literatura](#)
[Baixar livros de Literatura de Cordel](#)
[Baixar livros de Literatura Infantil](#)
[Baixar livros de Matemática](#)
[Baixar livros de Medicina](#)
[Baixar livros de Medicina Veterinária](#)
[Baixar livros de Meio Ambiente](#)
[Baixar livros de Meteorologia](#)
[Baixar Monografias e TCC](#)
[Baixar livros Multidisciplinar](#)
[Baixar livros de Música](#)
[Baixar livros de Psicologia](#)
[Baixar livros de Química](#)
[Baixar livros de Saúde Coletiva](#)
[Baixar livros de Serviço Social](#)
[Baixar livros de Sociologia](#)
[Baixar livros de Teologia](#)
[Baixar livros de Trabalho](#)
[Baixar livros de Turismo](#)