# THE ZOO DOCTOR

MODERN METHODS OF TREATING WILD BEASTS WHEN SICK AND INJURED— VARIED WORK OF THE ANIMAL SURGEON—GIBBON'S PARALYSED ARM CURED BY ELECTRICITY—ELEPHANT'S MANICURE—DOCTORING THE BIG CATS—BOA CONSTRICTOR'S TOOTHACHE—SERPENTS WITH ABSCESSES

## BY HAROLD J. SHEPSTONE

NIMALS, like human beings, fall sick and get injured, when medical aid is necessary to prevent the consequences becoming serious. Periodically the elephant requires his toenails cut, and the bigger cats their claws; snakes develop abscesses on their jaws which have to be removed; birds frequently damage their wings in their fruitless efforts to break out of their enclosures: monkeys get the toothache, and baby bears the mumps. Indeed, the wild beasts in our Zoological Gardens would appear to be subject to all the ills to which human flesh is heir.

The work of alleviating these suffering creatures falls upon the shoulders of the zoo doctor. He is always busy, never without a patient, and a patient, too, that often taxes all his nerve and resource. True, his work is pleasanter to-day than was formerly the case as the steps taken to preserve the health of captive beasts are now most elaborate. Attached to the more up-to-date gardens, such as those of London, New York, and Berlin are reception houses, sanatoriums, and hospitals. All new arrivals are received into the first named and carefully examined by the zoo doctor. If the beast is found to be at all indisposed it is here isolated for a time, or if ill, treated in the hospital. On no account is it placed on exhibition, or allowed to mingle with its fellows unless it is perfectly healthy. In the same way animals are at once transferred from their cages to the hospital when they fall sick and their dwelling thoroughly disinfected.

Indeed, the general public would be astonished at the amount of scientific

investigation and study which goes on in the laboratories of the great Zoological Gardens. Every animal that dies is dissected and its organs thoroughly examined with a view to discovering the cause of death. In this way those responsible for the health of the creatures learn many useful and practical hints. For instance, the orang-outangs in the New York Zoo were suddenly attacked with virulent diarrhoa, and the disease defied the greatest energies of the doctors. Four of them died. It was found upon dissecting the animals that they had died of a certain germ given to them by tortoises housed in the same building. Curiously enough, the germs were injurious to the primates, but not to the tortoises.

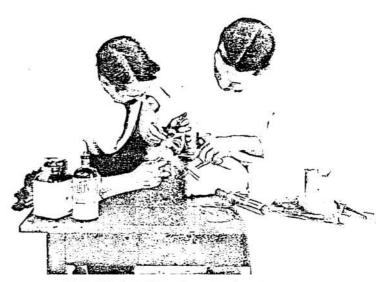
Generally speaking, it has been found that the monkeys and the bigger apes make the best patients, though there are exceptions, as the following shows. Dr. Lindsay Johnson, who has made a special study of the eyes of animals, once operated at the Zoo at Regent's Park on a large Japanese ape suffering from cataract. He was helped in this task by Mr. Arthur Head, who assists him in his scientific studies by drawing the eyes of animals. Mr. Head held the ape whilst Dr. Johnson operated. Now there is no greater animal lover than Mr. Head; he is on friendly terms with half the animals in the Park. But he made an enemy that day! From that time the Japanese ape took a violent dislike to one whom he had always tolerated, and who had invariably brought him some dainty tit-bit. For some time Mr. Head dared not enter the house where his cage was for fear the animal would go



EXTRACTING A CHIMIA (2.1) S TOOTH
FOW THE FORKLY S FROKEN ART AS
MENDED—ACD PROTECTED

MENDED—A'D PROTECTED

GETTIN THE BLACK 47 AP CUB FLADY FOR THE DINTIST TO LANCE AN A SCISS ON THE JAW

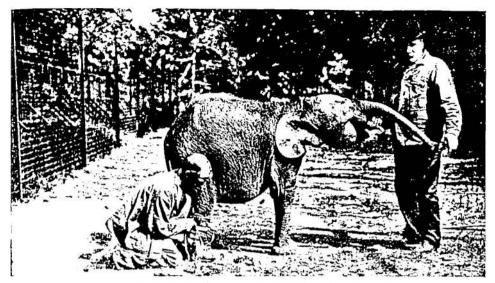


HOW THE ZOO DENTIST HAS TO WORK

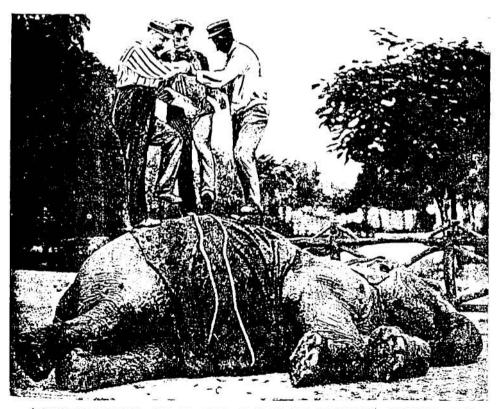


AN OPERATION ON THE DOA CONSTRICTOR

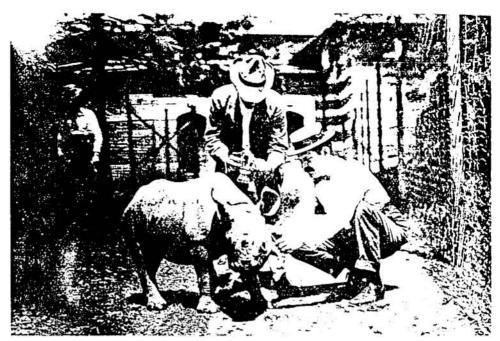
### THE ZOO DOCIOR



THE BABY ELEPHANT'S WEAK ANKLI SUPPORTING BOOTS



A MUSTARD PLASTER AND MASSAGE TO CURE THE ELEPHANT'S STOMACH ACHE



THE RHINOCEROS HAS AN APSCESS WHICH MUST BE CUT



A DIFFICULT OPERATION STITING THE TIGER'S LIGHTEN LEG

into a fit with rage. Even weeks after, when he caught sight of his former friend, he would fly into a fearful passion.

The other winter all the chimpanzees in the London gardens were attacked with bronchial pneumonia. A prompt treatment of sulphate of ammonia soon set them right again. One of the small gibbons here underwent the electric treatment for a paralysed arm. His keeper and the zoo surgeon, after a consultation, decided to send him to a specialist in Harley Street, whither he was taken one morning in a cab. The specialist recommended electricity, and twice a week for several weeks the gibbon travelled with his keeper to the famous street to undergo the "high frequency" treatment. The animal did not mind it in the least, for no shocks are given in this treatment. He seemed a bit puzzled at first at the action of his hair, which stood on end when the current was first turned on. The gibbon's arm is better, but there is one point evidently worrying him, and which he would like explained, and that is the reason why the fur has turned grey where the electricity was applied.

Two interesting surgical feats carried out on monkeys at the New York Zoo are worthy of notice. Jemmie, a brown, wild, daring creature engaged in a strenuous bout with a lanky, overgrown monkey, got the worst of it, and was thrown so violently to the floor of the cage that he broke his arm. He was borne away to the operating table and stretched thereon, while a chloroformed rag was pressed to his nose, and the surgeon gently pulled and twisted the frail broken end of the bone until it was back in its place. Then a plaster cast was put round the arm, and to prevent the monkey from tearing it off a huge wooden collar was placed round his neck. The other feat was the removal of an aching molar from the jaws of a large baboon. A monkey with the toothache is a pathetic, and at the same time a comical sight. He will hold his hand up to his jaw just like a boy suffering with a similar complaint.

On the whole the elephant is not a bad patient. He seems to recognise that what is being done to him is for his benefit.

In captivity it is necessary periodically to trim their feet and cut their toe-nails. The sole of an elephant's foot measures twenty inches across, and consists of a tough elastic gristle or cartilaginous growth. An elephant at large in the jungle or doing his day's work in India, gets sufficient exercise to wear the soles of his feet to the thickness of an inch. But in the gardens exercise to this extent is not convenient, with the result that the soles grow thicker and thicker until they crack and pick up all sorts of foreign matter that may work into the quick.

#### The Elephant's Illness

It is surprising, too, what these animals pick up in their feet. Not long ago the surgeon who attended to the feet of Jewel, one of the elephants in Central Park, New York, removed one of a set of dice, the bowl of an iron tea-spoon, the handle of a penknife, and an iron nail. The animal had gathered up these things in six months. The tools for trimming elephants' feet are a carpenter's draw-knife and a rasp for the soles, and a horseshoer's knife, and sand-paper for the toe-nails. Strips of the horny soles are sliced off with the draw-knife until the desired thickness is reached when it is smoothed off with the rasp. The toenails are then cut and rubbed with sandpaper.

Then elephants, particularly on their first arrival from the tropics to a more temperate climate, are apt to suffer from stomach ache, caused by the cold. Sometimes they have been so badly affected that they have rolled on the ground in sheer misery. The application of a thick mustard poultice, and a dose of gin and ginger invariably has the desired effect. A blanket is wrapped round the body of the animal and upon this is placed a thick layer of mustard. Over this another blanket is thrown and securely bound. Soon the heat of the mustard begins to permeate into the stomach, bringing the desired relief. A dose of gin and ginger completes the cure.

Before now, however, elephants who have tasted this drink during their earlier attacks have feigned illness in order to obtain a drink of gin and ginger. Zip, an elephant in one of the American zoos,

was very fond of rolling on the ground pretending he was ill to secure the coveted tonic. He did not leave off until the treatment was reduced to the mustard plaster only. At the New York Zoo there is a baby African elephant. Suddenly, it started walking lame as the result of weak ankles. A special pair of boots was ordered and these the creature wore for some time until he grew stronger and his ankles became firm again.

The big cats are by no means ideal patients, and the doctoring of them is anything but an easy and a pleasant business. M. Dramard, the celebrated French veterinary surgeon, must have found this the case when he was called in to operate upon one of Mr. Frank C. Bostock's leopards in Paris. In a fight with three other animals the leopard received several nasty wounds, and it was clear to the doctor that something had to be done. The leopard was first lassoed and thrown on its side. It was then drawn towards the bars of the cage, its fore and hind feet secured by ropes, held outside. M. Dramard and his assistants then entered the cage, and after some trouble rendered the animal unconscious by means of ether. The operation, which consisted in the removal of a large abscess, was thereupon proceeded with, but an hour elapsed before the surgeon had completed his work. It is in Mr. Bostock's menagerie where we find the only lion in captivity that wears a glass eye. This was "inserted" by M. Dramard, an operation which, contrary to the expectations of many, proved entirely successful.

The lassoing of the animal—the first step in all surgical operations—is always a tricky job in the case of the great felines. The animal must be roped in such a way that it is firmly held, but impossible for the creature to strangle itself. Sometimes the attempt has to be abandoned, as was the case when it was decided to doctor Princess, a particularly savage tigress, with a record as a maneater in far-away Mysore. When the slip-knot was dangled before her she made flying leaps into the air, darted her huge paws through the bars, and generally made such a fuss that some other means of securing her had to be found.

That night while the tigress was asleep

a keeper, who had been set on watch. noiselessly thrust a long stick with a huge ball of chloroform-soaked cotton through the bars of the cage under the animal's nose. Then the doctor was summoned. To make doubly sure, a chloroform bag was slipped over her head, the mighty paws, limp and relaxed, were noosed and tied, and the surgeon entered the cage. Princess had refused to eat, and it was clear that she was suffering from toothache, there being a nasty swelling under the jaw. The surgeon, with practised hand, removed the bag from the grim, set face, and prised the jaws farther apart. A great abscess was found at the root of a big tooth in the lower jaw. One deep, long slash with a razor-sharp lancet and the operation was done. Then the abscess was cleaned and syringed with peroxide of hydrogen, the ropes and slings untied, and the man-eater left to awaken to a relieving surprise.

#### The Big Cat's Manicure

Mention was made above of the occasional necessity of clipping the claws of the big cat. Such operations are fairly frequent: one was carried out recently on a leopard in the London gardens. In captivity the nails of these creatures are apt to grow inwards, when they must be cut or the consequence may prove serious. At a certain zoo in the East, the claws of a fine male tiger were allowed to grow into the flesh in this manner.

One night the poor brute maddened by pain pulled one of the claws out by the roots leaving an ugly sore. A surgeon was called in, the animal was roped, and chloroformed. Some of the nails had grown nearly an inch into the flesh. Where the tiger had pulled out the claw himself a hole was made to the bone from which a hundred maggots were taken. The offending nails removed, the wound was washed with antiseptics and in duc course the tiger completely recovered.

Few men have been more successful in doctoring the big cats than Mr. Carl Hagenbeck, of Hamburg. Occasionally they arrive at his depot in a very bad plight and need medical attention. Then he has purchased beasts from, it is sad to relate, the proprietors of zoological gardens and menageries, suffering from

sores, wounds, and disease. For instance. he once procured a jaguar, two years old, from a garden in this way. The animal was suffering from a large and deep wound on one of its hindquarters. Its owners had really decided to kill the animal, but the German purchased it for £3 15s., the value of the skeleton. took the animal away, fed it twice a day to get up its strength, gave it a warm bed of peat to lie down upon, washed the wound with an antiseptic, and then put ointment upon it. In ten weeks the wound was closed and the animal in the best of health. It was sold to a zoological garden some weeks later for £65.

On another occasion Mr. Hagenbeck purchased a Bengal tiger for £15. There were no fewer than a hundred and fifty sores upon its body. It had undergone a sea voyage in the middle of the winter, and had been left on deck, and the seawater allowed to flow into its cage. The animal was placed in a darkened apartment and given a bed of peat six inches deep. It was fed twice a day, the menu being varied, consisting of beef, horse flesh, sheep, and rabbits. In less than four months all the sores had healed, and the animal had a most beautiful coat and was in the best of health and condition. It was eventually sold for £75.

The inmates of the snake-house frequently require the services of the animal doctor. The boa constrictor gets the toothache, and must be operated on while the anaconda needs help to shed her skin, so as to prevent a fatal disease. Most of the poisonous snakes are liable to get abscesses about the head, jaws. and teeth, and these have to be removed or the consequences might prove serious. To capture these deadly creatures with as little risk as possible is naturally the chief concern. The snake is pinned down by the head by a long stick with a fork at the end. The keeper then grasps the creature by the head, and holds it in this tashion while the doctor performs the operation.

The above is the method adopted in the case of ordinary-sized reptiles. In

the case of the bigger snakes, such as pythons and boas, it would be impossible to hold them down by a stick. To remove one from the cage, eight, ten, or a dozen men are called into requisition. As soon as they have taken up their position the door is thrown open, and each grabs a part of the writhing monster. If you can keep a python fairly taut it can do no damage.

Czarina, a magnificent python at the New York Zoo. is often removed in this way from the cage, and forced to take a meal by pushing it down her throat. She once developed an abscess on her jaw which had to be removed, an operation which was successfully carried out.

At the same gardens another python disgraced itself in a fight with its mate. He got a nasty bite close to the left eye, and an operation was declared necessary to save the sight. The wriggling monster was taken from the cage and first rendered insensible by chloroform. The wound caused by the bite was then washed, and a slit, the most delicate part of the whole operation, was made close to the eye. This was necessary, as in the fight the eye had got pushed slightly to one side, and an incision was made to allow it to gradually fall back into its rightful place.

A few years ago, at the same zoo, the surgeon sawed off the teeth of one of the alligators who had developed the unforgivable habit of ripping open the other alligators in the same pen. Before now elephants have broken off their tusks. which have caused abscesses which have had to be lanced, the hippopotamus has had to have aching teeth extracted, and the rhinoceros his diseased horn removed. Storks in attempting rash flights have broken their slender legs, and these have had to be reset. On one occasion at a famous park eight feet of wire netting had to be cut off the body of a big brown bear. The animal had got the wire entwined round his body so tightly as to cut into the flesh. Indeed, the zoo doctor never knows when an animal will be reported as dangerously ill or in need of surgical aid.

# The World's Work

AN ILLUSTRATED MAGAZINE OF
NATIONAL EFFICIENCY AND SOCIAL PROGRESS

Edited by Chalmers Roberts



Vol. XVII

DECEMBER 1910 TO MAY 1911

LONDON
WILLIAM HEINEMANN
21 BEDFORD STREET, W.C.