ZULU CUSTOMS.

Well Defined Laws Seemingly of Semitic Origin.

By Captain A. H. Bicksley.

The feudal system is the keynote of the stability and power of the native tribes in South Africa, which renders them such a standing menace to the whites. Each kraal (village) is under the immediate control of a headsman, who is responsible to his superior for the good conduct morally and politically of every member of the community. Over the headsman, whose authority may often extend to more than one kraal, is the district induna (chieftain), who again in turn is directly responsible (and actually held so) to the paramount chief, who possesses powers of life and death, and in spite of British control, more frequently exercised than not, and often relegated to the induna of a district. This same feudal system facilitates the mobilization of the Zulu army, and makes it the formidable power it is; for in spite of the disclaimers of an influenced press, the Zulu military organization is by no means dormant, and not a native leaves for the mines or other centre of industry who does not know to what impi he is attached, or the particular induna he would have to serve in event of a call to arms by the paramount chief.

Dinizulu, like his father, soon came to crossways with the British, and he, too, was banished to St. Helena, and released only quite recently, and has resumed control of his tribes, but, unlike his father, was received with acclamation by his people, and now, firmer and stronger than ever, he sits sphinxlike at his head kraal, apparently unconcerned alike by the entreaties of his fellow native chiefs or the blandishments of British officials, quietly abiding his time, but all the while steadily consolidating and strengthening his position.

Under such a regime and practically well organized control, it is not surprising that the Zulus have a code of definite and well defined laws, which, if unwritten, are solidly based on ancient customs and traditions, and as inviolable as those of the Medes and Persians, and any infraction or infringement of which they are particularly jealous of; among these are an elaborate but systematic law of heritage, mainly personal estate, chiefly consisting of cattle, all lands being held in community, the complexity of succession arising from the practice of polygamy, the fixing of responsibility on a kraal for theft or crimes against property or person committed by any of its members, and the trial or punishment eventually of the culprit if caught, and, last but not least, the custom of lobola, or purchase or barter of the bride from her father or guardian, against a price recognized by law, with careful restrictions and annulment in the event of failure to consummate the marriage, barrenness, infidelity, or divorce on any of the legal grounds permitted by custom.

On the intricate law of lobola are based many of the customs and usages of the tribe; it is firmly binding on the contracting parties, recognized by the British government, and its provisions may be enforced either in the native tribunals or the white courts of the protectorate.

In the event of a Zulu wishing to marry, he, through a friend, approaches the father or guardian of the damsel of his choice and ascertains what value that worthy sets upon the charms or accomplishments of the lady, whose wishes in the matter are seldom consulted, and a bargaining then sets in that would shame two Port Said Levantines. Terms having been agreed upon, generally in the shape of so many head of cattle, according to the wealth of the bridegroom and standing or beauty, etc., of the bride, but never less than eleven head of cattle or their equivalent value, that being the lowest legal limit, one-third of the contract price is sent to the father of the prospective bride by her suitor, who then for the first time personally appears on the scene. The guardian returns a white ox in token of acceptance of the bargain, the bride is informed, and the betrothal is complete. On the day set apart for the wedding the balance of the barter price (lobola) is sent to the parent, who again ratifies the bargain, and the bride, decorated for the occasion and attended by her women friends, is visited in state by her prospective husband; her father, placing her hands in that of the man, acknowledges his receipt of the lobola, and declares in front of all present his consent to the marriage of his daughter. The bridegroom in same manner accepts her in front of the community as his lawful wife, and the legal ceremony is complete, though the wedding is kept up with feasting and merry-making often lasting for days, according to the wealth and rank of the husband.

There are many conditions, however, under which the husband may within a year and a day return the bride to her father and demand back all or a portion of the lobola, and this leads to many disputes and lawsuits, all, however, of which are decided by an inflexible custom from time immemorial.

Polygamy is almost universally practised, and any interference would inevitably be resented by force of arms, and a terrible war be the result. There is no restraint as to the number of wives a man may have, save only his power of finding the requisite lobola, but he is, however, bound by law to maintain a separate establishment for each spouse and her offspring. As this consists generally of a reed or wattle and daub house often built by the woman herself, it presents no serious obstacle; two to three are, however, the general number, except among the more wealthy, while many perforce content themselves with one partner.

The more married, however, the greater the wealth of the Zulu, for the women till the lands, sow and reap the maize, gather the fuel and, assisted by the younger members of the household, do all the hard work of the family, where everybody works but father, the men considering such menial work beneath their dignity as a nation of warriors, and content themselves with tending the cattle, conducting the affairs of the tribe, for the Zulu is a born politician, and spends his time in gossip and drinking tivala (a native beer), content with his lot nor caring for the morrow. This polygamous custom causes the dearth of labor and all its attendant troubles in South Africa. In a genial climate the Zulu's wants are few; he needs no clothes; his land and cattle, tilled and tended by his wives, supply all his requirements. The chase, in a land where game abounds, affords recreation and food. Why, therefore, should he work at all, unless compelled to find money to pay the iniquitous hut tax imposed by the hated white? Why should they come with their armed police to worry him, even if he is employed in a little playful pastime of burning his neighbor's kraal or looting a white settler's farm? Why not arise and drive the white man into the sea? They are but a handful, and fighting and killing are a Zulu's pastime and privilege since the glorious days of Chaka. So dreams the Zulu, and the whites gird themselves for the coming fray and wonder when.

The Zulus in their pristine state are as a class truthful, honest, honorable, and brave, though much addicted to strong drink, exceedingly clannish and loyal to their chiefs, while the women are kind hearted, good mothers, and exceptionally moral; in spite of the plurality of wives, they agree well among themselves, do their hard work uncomplainingly, and seem to be a light hearted, happy set, and a most picturesque and pleasing sight it is to see the native women and maidens gather at sundown, and, singing their weird chants, proceed to the riverside for their evening supply of water, remaining to gossip and laugh till nightfall.

Both sexes are hospitable, and practise cleanliness rigidly, and as a rule bathe every day, and usually the stranger within their gates is kindly treated and can rely on the integrity and protection of his host.

The language of the Zulus is soft and musical, and their powers of rhetoric considerable, while philologists speak highly of the beauty and flexibility of the Bantu grammar and its construction. Zulu is spoken almost throughout all the tribes among the ruling classes, and this tells the language of a conquering and superior race, while even beyond the Zambesi as well as to the south it is often understood where another language is the vernacular.

The quaint and picturesque manners of the Zulus would fill a volume and be of considerable interest, but space forbids; many of their customs, too, may be traced to a Semitic origin, and much resemble those of the Jews, among them the rite of circumcision, the feast of the first fruits held at the head kraal on the ripening of the corn, the feast of the full moon of the new year, the custom of raising seed to a dead brother, and the purification of women; and, indeed, it is difficult to combat the theory, often advanced, that Matabele Land, the origin of the Zulu, was the ancient land of Ophir, and that its inhabitants frequently came into contact with the Jewish tribes of the Old World, and who knows but that the Queen of Sheba, on her historic visit to Solomon, may have numbered Zulu chiefs among her train?

Such is the great Zulu nation, which presents one of the most complex questions of modern history, and which, by reason of their numbers, virility and intelligence, are bound to be a most potent factor in the future of South Africa, but what the outcome will be is still one of the unsolved problems the British government will have to deal with.—Harper's Weekly.

ENEMIES OF THE FOREST.

Fire Chief of These and Man Next, They Say in Canada.

It is a fact which Canada faces with some degree of sadness that within a few years she will be absolutely devoid of the beautiful pine forests which at one time were her pride. At the present rate of destruction the number of years cannot be great until there will hardly be another tree of the original forests to be cut within the limits of the Canadian lumber region.

Sir Wilfrid Laurier in a recent address called atention to the many enemies of the forest. Man, he said, is bad enough, but he is not so bad as the insects and the insects are not so bad as the fire. The fire is the great enemy of the forests. Year after year, during the summer months, miles and miles of forests are destroyed by fire. Perhaps it does not go on at so great a rate as in former years, but there is still far too much of it. Efforts are being made, however, to check the ravages of the flames. In the Ottawa Valley the lumbermen keep a patrol of the woods, and that is a great help. In order to be of the greatest service many more patrolmen would be required and the forests would have to be looked after as they are in France and Germany, so that so far as possible every incipient fire might be prevented from spreading. Furthermore, every man in that part of Canada—the lumberman, the sportsman and the man out of any class—should be impressed with the fact that it is a crime to throw a lighted match upon the ground, to scatter the ashes of a fire, or to leave a camp fire before it is absolutely extinguished.

Another destructive element to which Sir Wilfrid calls attention is the railway locomotive. The railroads are great blessings, undoubtedly, but one who takes the train at Halifax to go to Vancouver will find in every province of the Dominion where there is timber miles upon miles of what was once beautiful forest now nothing but parched and blackened timber—a monument to the destructiveness of the railroad locomotive. Yet the railroad men have taken every precaution in their endeavor to overcome the difficulty inherent in the operation of the railway locomotive. They have put screens upon their smokestacks and devised other methods, but all have proved inadequate. While the Canadian forests have never been called upon to pay the enormous tribute to multiplying industries that those of the United States have, they have been decimated by the speculative lumberman and the improvident settler and ravaged by fire until those which are accessible bear little resemblance to their primeval state.

ORIGIN OF TRADE UNIONS.

Journeymen Bakers Struck in New York as Early as 1741.

The exact date of the origin of trades unions in America is unknown. It is believed, says the report of the Massachusetts Bureau of Statistics of Labor, that there were no labor unions in the Colonies, although a strike of journeymen bakers is said to have occurred in New York in 1741. Whatever of associated effort there was among workmen at this early period was of a temporary nature, having a single purpose in view, and when this was accomplished whatever compact existed was then dissolved. It was then the custom to call a "general meeting," whenever a matter of trade importance presented itself. Such calls were generally signed by one or two men of recognized influence in the trade, and the meetings were, as a rule, held in private homes. They were organized by the election of officers, a statement was made of the purpose in calling the trade together, and after a discussion resolutions were adopted embodying the views of those present on the question presented. When the meeting had decided what the attitude of the trade was to be, all those present, if willing to do so, signed an agreement to stand by one another during the difficulty. Many, if not all, of the strikes in Colonial times were undertaken with no more of an organization than this.

The first real understanding, so far as compositors were concerned, is said to have been in 1776, when the journeyman printers made a demand for an increase of wages, which was refused by their employers, with the result that a strike was called. This proved successful, and the association ended. Again, in 1786, an effort was made to reduce wages to $5 83 1-3 a week, and the trade was again called together, and a statement issued, declaring that the signers would not work for less than $6 a week.

The great period of growth for labor unions was in the latter part of the sixties of the last century, owing to the organization of great corporations and to the opening up of the whole country to the work of freemen. Local unions were everywhere formed, vigorous labor journals appeared, labor parties were organized, in some places representatives of labor were elected to office, and many of the largest and strongest national unions now existing were established.

There is no complete enumeration of the membership of American trades unions. In January, 1903, Samuel Gompers estimated that there were about two and a half millions of trades unionists in the country, while, according to the American Federation of Labor, dues were paid in September, 1903, on a membership of 1,745,279.

NATIONAL GUARD NOTES.

Plans for the Opening of the New 69th Regiment Armory.

Company F, of the 69th Regiment, has voted to subscribe $5 a man to defray the expenses incident to moving into the new armory, and also in entertaining members of the 9th Regiment, of Boston, which will take part in the celebration. Company F, of the 69th, will take care of Company F, of the 9th. It has obtained several automobiles, in which the Boston visitors will be taken around the city.

Company F, of the 69th Regiment, has invited Company F, of the 7th Regiment, to be its guests at the opening of the armory on October 13. The 7th men have accepted the invitation, and as it has many musical members in its ranks there will be an interesting vaudeville entertainment.

Drills will begin in the 9th Regiment on October 1. Lieutenant Colonel S. E. Japha and Majors J. D. Walton and J. J. Byrne have been detailed to inspect drills. Lieutenant Mills Miller will have charge of the instruction of recruits.

Plans are under consideration for a dual athletic meet between members of the 22d Regiment, of Manhattan, and the 1st Regiment, of Chicago. It is proposed that the 22d Regiment men go to Chicago this fall and that the Chicago men come to New York next spring and compete in the 22d Regiment Armory. If the dual meet proves a success it will probably result in the formation of an interstate military athletic association.

Captain Louis Wendel, 1st Battery, and his officers have presented Colonel N. B. Thurston, of General Roe's staff, with a solid gold cigarette case as a token of esteem and long friendship. The presentation was made at a dinner tendered the colonel last Wednesday night.

Company B of the 71st Regiment has a full company with a waiting list, and other companies of the regiment are also receiving additions to their membership. The new armory is proving an attraction to young men who are fond of the military and athletics. Company B is doing great work at Creedmoor, and has qualified thus far 165 marksmen. Of these 49 are sharpshooters and 24 are experts. Company F and the Metropolitan Rowing Club will play a game of baseball this afternoon at College Point.

Officers of the 12th Regiment have now begun to gather at the armory and discuss plans for the coming drill season. Many were in the building last Monday night, despite the warm weather.

First Lieutenant John L. Pittaluga, of Company M, 14th Regiment, has been elected captain. He first joined the Guard as a member of Old Troop C, and served with it in Porto Rico in 1898. He was elected a second lieutenant in the 14th Regiment in 1902.

An entire new gallery is being constructed at the west end of the drill hall of the 23d Regiment Armory. It will seat about 400 people. A new pistol range is also being constructed. Lieutenant R. B. Ireland, of Company I, has resigned.

The signal detail of Squadron A, which is entirely voluntary, will begin its work on October 29. In past seasons the detail has been highly proficient in its duties, which include signalling by various devices, stringing wires, construction of telephone lines, etc.

MAN AGAINST BEAST.

The Latter Is Stronger, the Former Has More Endurance.

Were any one to suggest, in the course of ordinary conversation, that in the matter of physical strength man would compare favorably with the greater members of the animal race, he would probably be laughed to scorn. Whether such scorn would be justified depends entirely upon the significance attached to the word "strength." If "strength" be held to mean concentrated muscular power merely—as for a single lift, haul or blow—undoubtedly no comparison could be made that would not tend to hold the human being up to ridicule. Even a Sandow would seem feeble in comparison with a lion or an elephant. But, if the word "strength" be allowed to include not only muscular power but muscular endurance, then a very different tale would have to be told, and it would be the animal, not the man, who would have to "sing small."

Even this proposition at first glance must seem utterly unacceptable—to all not acquainted with the records of human achievement. A little study of such records, however, must convince anybody that, in the widest significance of the term "physical strength," man is unsurpassed by any living creature. Man, indeed, is capable of feats which, to the majority of his kind, must appear decidedly marvellous.

Most people would imagine that in a race between a man and a horse the latter must invariably and inevitably win, in spite of the fact that the ancient fable of the hare and the tortoise shows us that the race is not always to the swift. Whether the horse or the man won in such a contest would depend entirely on the nature of the race—presuming that the antagonists were fit representatives of their respective species, which would imply that the man was a well trained athlete.

In a short distance race—anything up to sixty or seventy miles—the man would certainly be vanquished. But, as the distance increased, the man's chances would become greater. Man's running record for sixty miles is 7 hours 30 minutes and 33 seconds—a record which a good horse could beat. But how many horses would equal man's running record for 100 miles—viz., 13 hours 26 minutes and 30 seconds? And supposing a horse were found capable of accomplishing this feat, could such an animal continue moving, as the man did, till he had covered 150 miles in 22 hours 28 minutes and 25 seconds?

Nor did this particular man, Charles Rowell, of Cambridge, cease work even at 150 miles. On the contrary, he put up a record of 380 miles in 79 hours 16 minutes and 25 seconds. More than one horse, I imagine, would have been needed to cover such a distance in such a time.

Yet Rowell's feat by no means represents the limit of this particular form of human endurance. P. Fitzgerald, of New York, covered 500 miles in 109 hours 18 minutes and 20 seconds, and George Littlewood, of Sheffield, 623¾ miles in 141 hours 57 minutes and 30 seconds. Where, then, would your horse be in a really long race?

One of the greatest difficulties to be overcome in the performance of feats of this description is the doing, more or less, without sleep. In this particularly trying form of endurance a man holds records that no living creature—with the exception of a salmon or a goldfish—could ever hope to equal.

In October, 1808, Captain Barclay, of Ury, made a match for 1,000 guineas, with Wedderburn Webster, to walk 1,000 miles in 1,000 consecutive hours—one mile in each separate hour. The start was made on June 1, 1809, at Newmarket Heath, and the course was a public road. Captain Barclay was twenty-six years old at the time, and weighed at the outset 13 stone 4 pounds. The feat was deemed impossible, but the captain displayed such pluck and endurance that, after a time, odds of 2 to 1 were laid on his accomplishing it. Before the finish these odds rose to 100 to 1. The last mile was concluded on July 12 at 3:37 p. m., and the match won.

His average time for the mile rose from slightly under fifteen minutes during the first week to slightly over twenty-one during the last. It is a remarkable fact that he never went to bed without undressing. Allowing, say, thirty-five minutes in each two hours for the walking and five for his toilet, he can never, during the space of six weeks, have enjoyed a longer sleep than one of eighty minutes. The captain lost two stone during the six weeks' tramp. Four days after its termination he, perfectly fit and well, joined the ill fated Walcheren expedition as aide-de-camp to the Marquis of Huntly.

Captain Barclay's feat, which only a human being could have accomplished, remained unequalled, in spite of many attempts to perform it, till the appearance on the scene of a pedestrian marvel named William Gale, who, in September and October, 1877, walked 1,500 miles in 1,000 hours, each mile and a half walk to be started at the beginning of the hour. The present writer saw the finish of that gigantic task. Gale, who was forty-five years old, appeared thoroughly done up. In the last walk but one it seemed as if he could never finish. Then, to every one's amazement, he pulled himself together, and positively sprinted the final journey, amid the frantic cheers of the onlookers.

To the two last mentioned achievements, it must be admitted, have put our four-legged friends completely out of court, but even they do not represent the full extent of man's powers in this direction.

Starting on Thursday, May 12, 1898, and concluding on the evening of June 6, W. Buckler, of Newport, Monmouthshire, walked 4,000 quarter miles in 4,000 consecutive periods of 9¼ minutes each, within the hours allotted, and generally finds his lost property. But one need not go so far as the New World to find instances of creatures that hoard. Most of the crow family have this trick. Every one who has kept a tame jackdaw or magpie knows the delight which these birds take in any shining object, and how cleverly they will steal it and hide it away.

A well known naturalist speaks of a wild crow which made a collection of bits of broken china and similar odds and ends, and hid them in a nettle patch. One day the naturalist stumbled on the bird standing in the middle of his treasures and arranging them. Next day they were all gone. The crow, aware that his secret hiding place was known, had moved everything to some new spot.

Children build houses of brick indoors and sand castles on the shore. Some youngsters take pleasure in adorning these sand castles with shells and seaweed. In the wilds of Australia bower birds amuse themselves in precisely the same way. The bower birds belong to the family of thrushes. Two sorts are common—the satin and the spotted bower birds. These are found in almost all parts of the Australian bush, particularly in New South Wales.

The bower of the bower bird is in no sense a home or nest; it is purely and simply a playhouse. The spotted bower bird builds its bower on the ground. The outside is of twigs, the inside daintily lined with tall grasses, so arranged that the tops nearly meet. But the oddest part of the whole curious performance is the way in which these pretty, shy little birds decorate their pleasure houses. They collect quantities of brightly colored feathers, pebbles, shells, morsels of sun bleached bone—anything, in fact, that strikes their fancy—and use these to decorate their bowers. Some are stuck between the twigs, some are arranged in piles at the entrances, some are laid in rows to mark out paths leading to the bower.

Two other species—the fawn breasted bower bird and the regent bird—have similar habits, but each different species has its own particular method of beautifying its pleasure resort. The bower of the fawn breast is as much as four feet long and eighteen inches high, and is raised on a thick platform of sticks. The same bowers are used for years if the birds are not disturbed and fresh additions are constantly made. As much as half a bushel of shells has been found in and about a single bower, and that though the bird that collected them was no bigger than a starling.

It may, perhaps, be possible to explain the trade rat's love of utterly useless objects, the jackdaw's hoards, the joy the bower bird takes in its dainty retreat, on other grounds than play. But such explanations appear needlessly far fetched when compared with the simple one—that those which we are pleased to call the lower creatures share our own human love of games and toys.—Strand Magazine.

GAS IN LONDON.

Old Lamps on Waterloo Bridge Restored.

London Bridge is not falling down. It is being "lighted up," and by gas lamps, at that. In this regard it is not different from those other arms of the old English city that span the Thames River and hold the water divided parts of the metropolis together. The visitor to London nowadays, or, more properly speaking, now-a-nights, is surprised at the general use of gas in London's thoroughfares, the interior of her prominent buildings and on her bridges. The reintroduction of gas for purposes of illumination in England has been making wonderful strides during the last two years, and a recognized authority recently said that "every important asylum in England is installed with incandescent gas lights."

Two years ago the London County Council erected arc standards on the parapets on Waterloo Bridge, and thus replaced the handsome gas standards that had stood thereon for admiring eyes for several years. A storm of protest was raised. The gas standards have been replaced and each lantern or lamp is fitted with two powerful incandescent gas burners. The new Vauxhall Bridge is lighted by gas, and the same illuminant has been restored in the lighting of the Brighton Aquarium. In a recent visit to London I found that the exterior of Buckingham Palace is lighted by gas. A flood of light was diffused across the palace courtyard and the outer pavements and streets. From the Mall the brilliancy of the scene is effective. At the entrances and along the railings in front of the palace there are twenty-eight lamps. Five lamps are on each pillar of the two Sovereigns' Gates.

The railroad stations also have gas installations now. In the Broad Street Station flat flame burners of 8,000 candle power have been replaced by incandescent mantle lamps having 40,000 candle power. The visitor to London will also find that Queen Victoria street, Cheapside, at the head of Queen street, Lower Thames street and Monument street are illuminated in whole or in part by gas, and it will also be noticed that six refuges, or "isles of safety," in Oxford street, near Tottenham Road, are equipped with brilliant gas lamps.

In the avenue leading to the Great Wheel, in the Earl's Court Exhibition, gas has been only recently installed; in fact in all the places and in many other localities gas had not showered its radiant light for many years, until now the authorities, with the approval and support of the people, returned to that ever ready and faithful servant—gas.—Gas Logic.

AN APPEAL FOR CHARITY.

The Brooklyn Bureau of Charities appeals for contributions to a special fund of $117 for a family of six in which the widow has only recently lost her husband and two of her children. There is a boy, thirteen years old, who will be able to work next summer. In the meantime the family has an income of only $4 a week from a sixteen-year-old girl, besides a little money which the widow herself earns carding buttons. When the boy goes to work the family will be able to support itself. The fund will be used to pay a scholarship of $3 a week to the boy during the school year. Contributions marked for "Special C Fund, No. 2," may be forwarded to William I. Nichols, general secretary, Bureau of Charities, No. 69 Schermerhorn street, Brooklyn.

IN THE END SEAT.

"The end seat hog may be bad enough," said a man who has occasion to travel on the Park and Zion streetcar lines very frequently, "but he is much preferable to another class of travellers.

"I refer," he continued, "to those individuals who place themselves near the end of a seat, and then pile bundles and grips up in front of them. If you have ever tried to climb over such a proposition you can sympathize with me. I do not know the reason why so many of the Park and Zion streetcars are afflicted with that genus, but nearly every time I try to board a car I am up against that thing.

"A few nights since I had an unpleasant experience. There was only one vacant seat in the whole car, and that was near the rear end. In the end of the seat was a woman who was decidedly embonpoint, or, in other words, fat. She had a small child on her knees, and in front of her was as curious an assortment of bundles as one would care to see. I requested her to 'push along,' and she gave me a tongue talk that was as fine a specimen of what the 'gentler sex' can do in the way of vituperation as I have heard in a long time. Finally my wrath was aroused, so I stepped into the car and made a dive for the empty seat. I was not particularly careful about lifting my feet, and those bundles skiddooed, I can tell you. The result? The woman called upon the conductor to eject me, and, failing in that, she threatened to have me arrested. I wish she had, but she apparently thought better of it. When I left the car at Washington street the last thing I heard was:

"'You are the meanest man I ever saw. Some one ought to give you a good thrashing, and if I wasn't a woman I would do it.'

"Can you beat it?" interrogated the man, as he moved toward a thirst quenching establishment.—Hartford Times.

BOLIVIAN PETTICOATS.

The prized possession of the Bolivian Indian woman and her chief pride also, whether she is pure Indian or chola, is her petticoat. Her dowry is in this garment. Like the Dutch woman of tradition, she carries her wealth about with her. These petticoats are of all colors of the rainbow and divers other hues not found therein. I first noticed them at Nazarene, and remarked that love of color which must be inborn, for the garments were of yellow, purple, violet, fiery red, crimson, scarlet, subdued orange, glaring saffron, blue and green. They were very short, reaching barely below the knee, and no difference was observed between childhood, maidenhood, matronly middle life and wrinkled old age. Glancing from my window in Tupiza, I thought it was a parade of perambulating balloons.

These women have a habit which the bashful traveller does not at first understand. When he sees one of them calmly removing a petticoat he is apt to turn away, but he need not do so. It may be that the advancing heat of the day has caused the wearer to discard the outer skirt, but more likely it is the vanity of her sex and the desire to make her sisters envious, by showing what is beneath, for each new vesture disclosed is more brilliant than the one which overlapped it. I sat in the plaza at Tupiza and watched two Indian women try to make each other envious. The first one removed the outer petticoat, which was of purple. This divestment disclosed another garmet of blazing red, and after that came a brilliant yellow. The other woman started with a green petticoat and gradually got down to a mixture of blue and yellow. By that time I had begun to fear for the consequences and made a pretence of turning my back by strolling to the hotel.—National Geographic Magazine.

GAMES OF ANIMALS.

Not Unlike Those of Men and Boys.

By T. C. Bridges.

Human children have two sorts of games. They either play with toys, inanimate objects of some kind or other, or else with one another. Animals do the same. Their games are, of course, not very advanced. They make practically no demands upon intellectual powers, but only upon bodily activity—in fact, they closely correspond with the plays of very young children.

There is nothing that a plump, healthy youngster of toddling age enjoys more than a roll down a grassy bank or the soft side of a haycock. We find more than one wild animal which practises and enjoys a sliding play. Otters go in for regular tobogganing. First choosing a steep, sloping river bank where the soil is of clay and the water at the bottom fairly deep, they set to work and carefully remove all the sticks and loose stones which might get in their way, and then the fun begins. Climbing up the bank at some spot where it is not too steep, the first otter goes to the head of the slide, lies down flat on his stomach, gives a kick with his hind legs, and down he glides, head foremost, into the water. The second follows his leader's example, and then the third, as rapidly as they can. The bank soon becomes smooth and slippery, and the faster they travel the more the otters enjoy it. They keep on and on until quite tired out, and will come back to the same spot day after day to renew their game. So common is this practice on the part of otters that the relentless trapper long ago came to know it well, and makes a practice of setting his trap just where the poor little beasts leave the water to climb afresh for another slide, and hardly ever fails to secure the leader, generally the old dog otter.

With otters this tobogganing is not merely a summer pastime. In winter they have the same amusement, the only difference being that they choose a snow bank instead of a mud one.

Brehm, the German naturalist, has recorded an exactly similar game played by chamois in the Alps. In summer chamois climb to the upper heights, and there, in the midst of the solitudes of perpetual snow, enjoy themselves vastly, leaping from rock to rock, and often playing a game very like follow-my-leader. But the most curious part of their fun is their tobogganing. They choose a steep, snow covered slope; the leader throws himself into a sort of crouching position, and, working his legs as though he were swimming, slides down for a distance of a hundred yards or more. Arrived at the bottom, he springs to his feet and climbs up again. The others look on, and then another of them makes a trial of the slide. The rest follow, one by one.

It may be objected that chamois have adopted this method of travelling down a snow slope simply because it was the easiest and most convenient, but surely the fact that the same animals have been seen to make the experiment several times over on the same slide is certain proof that the tobogganing is genuine play and nothing else.

There are many instances on record of dogs having taken to coasting down snow slopes. But the dog is a domestic animal, and a marvellously imitative one, so for the purpose of proving animal play he must in this case be put out of court.

Humboldt speaks of having seen a young capuchin monkey riding a pig. The monkey would wait about in the morning until he could catch a pig, spring on its back and ride off with every symptom of delight, clinging so tightly that poor piggy, do what he might, could not free himself of his encumbrance. Once he had secured a mount, nothing would induce Master Capuchin to give it up. Even when the pig was feeding the monkey kept his seat. The lemur is not a monkey, but a very near relative. A white fronted lemur belonging to Broderlip, the naturalist, used to have tremendous games with a tame beaver named Binny. Macky, as the lemur was called, would play "tag" with Binny, touching his great flat tail with one finger and dancing around and around the heavy, amiable beast, while the beaver, with elephantine playfulness, would charge Macky with all his might, but, of course, never coming near the airy sprite.

One day the two were left alone together. In the room was a linen press, and some careless person had left the doors open. Half an hour later the beaver was found snoring happily on a comfortable couch of piled up tablecloths, sheets and napkins, while close beside him, his head pillowed on the beaver's soft fur, lay Macky, also sound asleep.

The writer once owned a pet American raccoon. The little creature formed a firm alliance with a black kitten, and the games those two had beggar description. Hide and seek around the coon's kennel and a pile of barrels was the commonest play. No one could watch the two without feeling positive that they enjoyed the romp and understood one another's movements just as well as any two children ever did. One day in her wild excitement pussy ran on to a springboard which stretched out over a pond and fell in. What did the 'coon do but deliberately follow! There was apparently no intention of rescue, and, in any case, the cat was ashore again in a few strokes, for she is a very fast swimmers. But it was an odd thing to see.

Late in the summer or in early autumn the squirrel kittens have tremendous games. They usually choose a beechwood for their antics, and it is one of the prettiest sights in the world to watch them.

Sit perfectly still, and they will not pay the slightest attention to you. Their principal game is chasing one another round and round the trunk, corkscrew fashion. The leader will then dash out to the tip of a thin branch and leap thence into another tree, the others following full speed, barking all the time with sheer delight. It is, in fact, a regular follow-my-leader game.

Monkeys have similar games. Karl Groos mentions a tame, long-tailed monkey that was devoted to swinging. He would hook his chain over a bough and swing at the end of it with the plainest pleasure. He knew exactly how much line was needed so as just to clear the ground, and never made a mistake in letting out exactly the right amount.

Almost all young animals play. It is one of the most charming sights imaginable to watch fox cubs amusing themselves outside the earth late on a summer evening. They not only roll and gambol like kittens or puppies, but they have also a game which strongly resembles a sham fight.

The young of all the cat tribe, including lions and tigers, are naturally playful. Even such clumsy creatures as rhinoceroses and elephants enjoy games in their early youth.

Badgers have a peculiar play. They seem to enjoy turning somersaults. The young badgers in the Zoological Gardens amuse visitors by turning somersaults scores of times in succession on the same spot.

Bears do the same thing, and not only young bears, but old ones also. The natives of Kamchatka have a dance which they call the bear dance. Every gesture is copied accurately from the bear. The natives themselves appear to be proud of the fact that the bears are their dancing masters.

Dancing is by no means confined to quadrupeds; in fact, it is the principal play of many birds. Perhaps the finest of bird dancers is the South American cock of the rock. These birds have regular dancing places, level spots which they keep clear of sticks and stones. A dozen or more of the birds assemble round this spot, and then a cock bird, his scarlet crest erect, steps into the centre. Spreading his wings and tail, he begins to dance, at first with slow and stately steps, then gradually more and more rapidly, until he is spinning like a mad thing. At last, tired out, he sinks down, hops out of the ring, and another takes his place.

Some of the quail tribe are great dancers, and so are the American sandhill cranes. It is a most ludicrous sight to watch a crane dancing; he is so desperately solemn over the whole performance. He looks like a shy young man who has just learned to waltz and is rather ashamed of the accomplishment.

So much for games without toys. But many wild creatures get a great deal of amusement out of various inanimate objects. The kitten plays with a ball of worsted, and every one knows the dog that possesses a pet bone, some dry and grubby relic which is not the least use as food, but which the animal throws about and catches again by the hour, and when finished with it buries in some secluded corner against another day.

Beckmann gives a delightful account of a raccoon which used to amuse itself by washing various odds and ends in a bucket of water. An old pot handle, a snail shell or anything of the sort would do, but what he loved best of all was an empty bottle.

Clasping it in his forepaws, he would waddle slowly to the bucket with the bottle clasped close to his breast, and then roll it and rinse it in the water. If any one ventured to disturb him he was furious and threw himself upon his back, clinging so tightly to his beloved bottle that he could be lifted by it.

Groos says that bears will do the same sort of thing. He relates the case of a polar bear which used to roll an old iron pot to and fro in his tank, and then, lifting it out, rub it up and down in a trough of running water. He stood on his hind legs and used his forepaws exactly like a washerwoman washing clothes.

Certainly this bear looked upon the kettle as a toy and the washing a game. There could have been no other possible object in his queer performance.

One of the oddest little animals in existence is the Californian woodrat, better known as the "trade rat." It owes the latter name to the fact that, though it is a great thief, it never steals anything without putting something else in its place. Rather more than a year ago a photograph appeared among the "Strand" curiosities of a paste pot which had been left overnight in the assay office at the Silver Queen Mine, and which was found in the morning filled with the oddest collection of rubbish. This was the work of trade rats. They had stolen the paste and left in exchange a piece of stick, a length of rope, some odds and ends of wire and an unbroken glass funnel.

The object of the trade rat in so scrupulously paying for what he takes is a mystery. But these same rats certainly take the greatest pleasure in the odds and ends which they steal and collect. In Lindsay's "Mind in Lower Animals" a description is given of a trade rat's nest found in an unoccupied house. The outside was composed entirely of iron spikes laid in perfect symmetry, with the points outward. Interlaced with the spikes were about two dozen forks and spoons and three large butcher knives. There were also a large carving fork, knife and steel, several plugs of tobacco, an old purse, a quantity of small carpenters' tools, including several augers, and a watch, of which the outside casing, the glass and the works were all distributed separately, so as to make the best show possible. Altogether the oddest collection. None of these things were of any earthly use to the rats. They must have collected them just in the same way that a child hoards up odds and ends to play with.

The trade rat has its South American counterpart in the viscacha, a pretty little relation of the chinchilla, which lives in families of twenty to thirty on the pampas. Everything that takes its fancy and is portable is carried by the viscacha and piled in neat little heaps at the mouth of its burrow. If a ranchman drops his watch or any similar article he always searches the viscacha burrows in the neighborhood, and generally finds his lost property.

GAMES OF ANIMALS.

Not Unlike Those of Men and Boys.

By T. C. Bridges.

Human children have two sorts of games. They either play with toys, inanimate objects of some kind or other, or else with one another. Animals do the same. Their games are, of course, not very advanced. They make practically no demands upon intellectual powers, but only upon bodily activity—in fact, they closely correspond with the plays of very young children.

There is nothing that a plump, healthy youngster of toddling age enjoys more than a roll down a grassy bank or the soft side of a haycock. We find more than one wild animal which practises and enjoys a sliding play. Otters go in for regular tobogganing. First choosing a steep, sloping river bank where the soil is of clay and the water at the bottom fairly deep, they set to work and carefully remove all the sticks and loose stones which might get in their way, and then the fun begins. Climbing up the bank at some spot where it is not too steep, the first otter goes to the head of the slide, lies down flat on his stomach, gives a kick with his hind legs, and down he glides, head foremost, into the water. The second follows his leader's example, and then the third, as rapidly as they can. The bank soon becomes smooth and slippery, and the faster they travel the more the otters enjoy it. They keep on and on until quite tired out, and will come back to the same spot day after day to renew their game. So common is this practice on the part of otters that the relentless trapper long ago came to know it well, and makes a practice of setting his trap just where the poor little beasts leave the water to climb afresh for another slide, and hardly ever fails to secure the leader, generally the old dog otter.

With otters this tobogganing is not merely a summer pastime. In winter they have the same amusement, the only difference being that they choose a snow bank instead of a mud one.

Brehm, the German naturalist, has recorded an exactly similar game played by chamois in the Alps. In summer chamois climb to the upper heights, and there, in the midst of the solitudes of perpetual snow, enjoy themselves vastly, leaping from rock to rock, and often playing a game very like follow-my-leader. But the most curious part of their fun is their tobogganing. They choose a steep, snow covered slope; the leader throws himself into a sort of crouching position, and, working his legs as though he were swimming, slides down for a distance of a hundred yards or more. Arrived at the bottom, he springs to his feet and climbs up again. The others look on, and then another of them makes a trial of the slide. The rest follow, one by one.

It may be objected that chamois have adopted this method of travelling down a snow slope simply because it was the easiest and most convenient, but surely the fact that the same animals have been seen to make the experiment several times over on the same slide is certain proof that the tobogganing is genuine play and nothing else.

There are many instances on record of dogs having taken to coasting down snow slopes. But the dog is a domestic animal, and a marvellously imitative one, so for the purpose of proving animal play he must in this case be put out of court.

Humboldt speaks of having seen a young capuchin monkey riding a pig. The monkey would wait about in the morning until he could catch a pig, spring on its back and ride off with every symptom of delight, clinging so tightly that poor piggy, do what he might, could not free himself of his encumbrance. Once he had secured a mount, nothing would induce Master Capuchin to give it up. Even when the pig was feeding the monkey kept his seat. The lemur is not a monkey, but a very near relative. A white fronted lemur belonging to Broderlip, the naturalist, used to have tremendous games with a tame beaver named Binny. Macky, as the lemur was called, would play "tag" with Binny, touching his great flat tail with one finger and dancing around and around the heavy, amiable beast, while the beaver, with elephantine playfulness, would charge Macky with all his might, but, of course, never coming near the airy sprite.

One day the two were left alone together. In the room was a linen press, and some careless person had left the doors open. Half an hour later the beaver was found snoring happily on a comfortable couch of piled up tablecloths, sheets and napkins, while close beside him, his head pillowed on the beaver's soft fur, lay Macky, also sound asleep.

The writer once owned a pet American raccoon. The little creature formed a firm alliance with a black kitten, and the games those two had beggar description. Hide and seek around the coon's kennel and a pile of barrels was the commonest play. No one could watch the two without feeling positive that they enjoyed the romp and understood one another's movements just as well as any two children ever did. One day in her wild excitement pussy ran on to a