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While he was thus occupied, it happened that he and Herbert came unexpectedly into collision.

Boys' Own Book
OF
SPORTS, BIRDS, AND ANIMALS.



NEW YORK:
LEAVITT & ALLEN,

Entered according to the Act of Congress, in the year 1848, by

GEORGE S. APPLETON,

**In the office of the Clerk of the District Court of the United States in
and for the Eastern District of Pennsylvania.**

P R E F A C E.

THE boy's library is not considered complete without a Book of Sports. The little fellows like to have a printed authority for the laws of the game; and they take delight in reading descriptions of those games and amusements which afford them recreation in the intervals of labour and study.

Our little volume describes the most popular amusements, and will undoubtedly suggest to most of its juvenile readers some sports with which they were previously unacquainted. We have confined ourselves to those sports which prevail in our own country—those which all may participate in, without inconvenience; believing it to be quite superfluous to give any account of those which are wholly foreign and unpractised by American boys.

And if our efforts have been instrumental in instructing, improving, or amusing any of our youthful readers, we need scarcely affirm, that it will prove a source of real and unmixed gratification to their well-wisher and friend,

UNCLE JOHN.

(3)

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be supported by proper documentation, such as receipts and invoices. This ensures transparency and allows for easy verification of the data.

In the second section, the author outlines the various methods used to collect and analyze the data. This includes both primary and secondary data collection techniques. The primary data was gathered through direct observation and interviews, while secondary data was obtained from existing reports and databases.

The third part of the document details the statistical analysis performed on the collected data. It describes the use of descriptive statistics to summarize the data and inferential statistics to test hypotheses. The results of these analyses are presented in a clear and concise manner, highlighting the key findings of the study.

Finally, the document concludes with a summary of the findings and their implications. It discusses the limitations of the study and suggests areas for future research. The author expresses confidence in the reliability of the data and the validity of the conclusions drawn from the analysis.

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THE BOYS
BOOK OF SPORTS AND GAMES.

MINOR SPORTS.

BONCES.

HAVING provided yourselves with marbles, called bonces, let the one agreeing to commence the game, roll his marble a short distance. His adversary then shoots at it, and so on in rotation until one or other wins it, by striking the marble the number of times agreed upon.

SPANNING.

This is played with any kind of marble. The one agreeing to commence, shoots his marble as far as he likes. His opponent then shoots in his turn, endeavouring to strike the one first shot, or shoot it so close that he can touch both at a span; if he can, he wins; and so on in succession, until one or other wins.

THE REGIMENT OF SOLDIERS.

According to the number of players, let each put down two or three marbles, and having placed them in a straight line, draw another line about two yards from where the marbles are, to play from, which is done by shooting at them in rotation; and all the marbles knocked off the line become the property of the player.

CHIP HALFPENNY.

To play at this, you must provide yourself with a small wooden spoon, as well as your top. Draw a line, on which place the two halfpence. The first player then spins his top, and taking it up in his spoon, tries to chip his halfpenny towards the goal or winning place; his opponent then does the same, and so on till one or other wins.

HOCKEY, OR SHINNEY.

It will be necessary in this game, to provide yourselves with a vine stick having a hook at one end, and also a ball; or a good sized bung, is the best to play with. The players must be equal in point of numbers, on each side. The bung is then placed in the centre of the playground, and the party winning the right of striking first, attempts to strike it to touch his opponent's goal, and he must be well backed by his party to enable him, if possible, to succeed. This game affords excellent amusement and sport when the game

is played by skaters, but they must be good ones, or it is dangerous. This is called in Scotland, &c., shinney, from the players striking each others' shins, in trying to knock the bung from between their legs; but this I trust my young readers will not attempt, as it invariably produces much ill feeling, which should not exist between little boys.

I SPY I.

This game is best played where there are a number of convenient places to hide. Sides are chosen, and one party goes out to hide while the other remains at "home." One of the players who are out hiding, calls "*warning*," and then quickly hides himself. The other party at home, then sallies out to find them, but if two of the hiding party can reach home before one has been discovered, they cry out "all home," and then go and hide again. The seekers must find two of the opposition before they are entitled to go out and hide.

MASTERS AND MEN.

This is a game that admits of great variety, and will afford as much amusement to the spectators as to the players. In fact, if properly played, they may well be called juvenile charades. The party is divided into two; one to be called the masters, and the other the men. The latter, who commence the game by agreement, must try and keep the mas-

ters out of work as long as they can. The men must make a choice of some trade they can easily imitate, such as a carpenter, mason, doctor, &c., and one of them must tell the masters the first and last letters of the trade; and endeavour to depict the actions of men employed in the trade chosen. If the masters guess the proper answer, they take the place of the men. If after some time they do not, they begin a new trade.

THE GRACES.

This game is played by any number of persons standing apart from each other, and requires two wands, and a hoop covered with leather, which may be procured at any toy shop. The wands are held firmly in each hand, and the hoop is placed on them. The wands must then be crossed, and sharply drawn asunder, trying to drive the hoop, so that another with whom you are playing may catch it.

THE BANDILOR.

This toy is made of wood, somewhat in the shape of a ship's pulley, with a string wound round the centre. To bring this into action, the end of the string must be held between the finger and thumb, allowing the bandilor to fall; the string will then unwind itself, and on checking its fall, will instantly rewind itself. This is a nice plaything, and may be easily procured.

CUP AND BALL.

This toy must be procured at some toy shop. They are made of wood and ivory; the latter is the best, as it is not so liable to chip or splinter. You must hold the stem of it between the finger and thumb of the right hand, and jerk the ball upwards to enable you to catch it in the cup, turning the ball round in the jerk. When you have attained some proficiency in catching it in the cup, you can then endeavour to catch it on the pointed end, or stem, though it will require some practice to accomplish this.

NINE HOLES.

This game is played as well with leaden bullets as with marbles. They are to be bowled along a level course, at a board having arches cut in it, with numbers marked over each arch; viz., supposing there are eight arches, they may be numbered thus, 2 0 5 1 0 4 3 0. If the bowler strikes the side of the arch, he loses his marble, but receives as many from the owner of the board as the number over the arch through which his marble passes.

RACKETS.

This game is played in a clear space of ground, having a high wall painted black, and the ground divided into four equal parts with chalk, two divisions near the wall, and two behind them. The latter are occupied by the out players

At the height of forty inches from the ground, a broad line is drawn with chalk on the wall, and the ball must strike the wall above this line. It can be played by either two or four players. When two play, each must cover two compartments; but when four are playing, each player takes one of the divisions. Those occupying the divisions nearest the wall, are called "in hand" players; those in the others, "out hand" players. The ball must not weigh more than one ounce, and as the eye cannot well follow it in the game unless it is rendered discernible by being frequently rolled in white chalk, it should be changed often for that purpose, as it then forms a strong contrast to the black wall played against. The ball is driven forward against the wall, with a *racket*, formed of a strong catgut-net work. The rules are as follow:—After deciding who begins the game, it is commenced by the "in hand" party striking the ball against the wall; if it strikes under the line, or goes over the wall, or does not rebound into the "out hands" spaces, or goes beyond the bounds of the racket ground, the striker is "out," and the "out hand" takes his place. Should none of these occur, when the ball has rebounded into the out-spaces, and risen from the ground, it is driven back to the wall again, to rebound into one of the in-spaces, and so on alternately. The art consists in driving the ball in such a manner against the wall, that in its rebound, your opponents shall be unable to pick it up or hit it; when this

occurs, the one who struck the ball counts one point, and the game is so continued, until one side scores eleven or fifteen as agreed upon.

FIVES.

Sometimes called hand tennis, or palm play, from being once played with the naked hand, afterwards with a lined glove, or cords bound round the hand. Fives can be played singly or with partners. A wall should be selected with a good level hard piece of ground before it. A line is then drawn on the wall three feet from the ground; another on the ground two yards from the wall; and another describing three sides of a square, of which the wall makes the fourth, to mark the bounds. The winner of the choice of commencing, begins by dapping his ball on the ground, striking it against the wall above the line drawn, so that it may rebound far enough to fall outside the line on the ground. The other player then strikes it in the same manner before it has touched the ground more than once. The first player then prepares to strike it as it rebounds, and the game is thus continued until one of the players fails to lift the ball before it has rebounded from the ground more than once, strikes it below the mark, or drives it out of bounds. If the player does either of these, he loses his innings; if the other, then the in-player scores one on each occasion towards the game, which is fifteen. The rules are

the same when partners are playing, each side keeping up the ball alternately, and the partners taking it in turns for innings as the other side goes out. After the ball is first played out at the commencement, it is not necessary to make the ball rebound beyond the ground line, which is used only to make the player who is *in* give out the ball fairly, when he first takes the innings, or plays out the ball after he has won a point.

FOOT BALL.

This game was formerly much in repute in England, until the reign of Edward the Third, when it was succeeded by the more delightful amusement of archery, the practice of which was enforced by a public edict, as foot-ball was found to impede the progress of the latter accomplishment, and its being properly learned. The game should be played in a large field, having at each end a boundary mark or home for the contending armies, which may consist of any number equally divided; and is played with a bladder filled with wind, or an India rubber ball covered with seal skin. The ball is placed in the centre of the field, and the contending parties endeavour to kick it into their opponent's boundary. The party which first succeeds in doing this, wins the game. This is a game that will afford excellent amusement, and is highly conducive to health.

GOLF, OR CAMBUCA,

So called in the reign of Edward the Third, from a crooked club or bandy-bat used in playing. In Scotland it is much practised, and is sometimes called bandy-ball.

This game may be played by any number, each player being provided with a bandy made of ash, four feet and a half long, with a curve or hook affixed to the bottom, made of horn, and backed with lead. The ball should be small, made of feathers covered with leather, and very hard. The game consists in driving the ball into holes made in the ground at certain distances one from the other, and he who succeeds in doing so in the fewest number of strokes wins the game. Between the first and last holes a space of two miles may intervene; the number of holes between which are optional. The ball must be driven into each hole and not beyond it. There is a golf club in London composed of Scotchmen, who meet once a year to play a grand match. They appear in Highland costume, which forms a very picturesque exhibition.

HURLING.

The number of players must be even, and divided into pairs, and when the game commences, each pair become individual opponents. They should be well matched as to size and strength. Two poles are fixed in the ground ten feet apart, and opposite them two more (the same distance

apart) about two hundred and fifty paces off. The umpire, who does not take a part in the game, then throws up a ball, and whoever can catch it, and carry it through his opponent's goal, wins the game. The point of the game consists in the holder of the ball retaining it long enough; for his antagonist endeavours to possess himself of the ball, and impede the holder's progress. The law of the game is that they may hurl the ball from one player to another, but two must not attack one, nor can the holder of the ball hurl it to any of his party who may be nearer his opponent's goal than himself.

STOOL BALL

Is played by two persons, one taking his place in front of a stool placed upon the ground, the other taking his place at a distance. The latter tosses the ball, endeavouring to strike the stool, and it is the business of the other to beat it away with his hand to prevent this; and he reckons one to the game for every time he strikes the ball away. If on the other hand, the stool should be struck, the players change places; the one winning the game who drives the ball away from the stool the greatest number of times. This game may be played by several persons placing stools in the form of a circle, a single player to each stool; when the ball has been struck, each one changes his place, running from stool to stool, and if the feeder recovers the ball in

time to strike any of the players before he arrives at the stool to which he is running, they change places, and the one touched becomes feeder until he succeeds in striking another.

TRAP, BAT, AND BALL.

A boundary is placed at given distances on each side of the trap, through which the ball must pass, and a line is fixed fifteen or twenty feet from the trap, and eight or ten feet high, over which the striker must send the ball, or he is out. The game may be played by any number. The one who is to commence places his ball in the spoon of the trap; he then touches the tongue, and as the ball rises he strikes it. The other players endeavour to catch it, and the one who succeeds before the ball has struck the ground becomes the batsman. If the ball is not caught, the player into whose hands it comes, bowls it at the trap from the place where he picked it up. If he hits the trap, the striker is out, and he takes his place. If he misses it the batsman scores one towards the game. The tongue of the trap should not be struck too violently; and it is well to catch the ball with your left hand once or twice before calling "play," and striking it. This will enable you to judge what is the best position to stand in, so as to strike the ball in a direction where there is the least chance of its being caught. By allowing the ball to rise to its greatest height it will enable you to take a good aim at it as it is falling.

ROUNDERS.

This and the above game rank next to cricket for amusement, and being healthy and invigorating exercises. It is played with a round stick two feet in length, and a hard bench ball. Four or five stones or posts are placed in the form of a circle, one of which is called the "home" and the others "bases." After partners on each side have been chosen and the innings determined, the out players are scattered over the field, one taking his place as "feeder" in front of home, and one behind to return the ball to the feeder. The in player who commences then strikes at the ball. If he succeeds he runs from base to base, and another takes up the bat. If any strike at a ball and miss it, they are out; or if any are struck with the ball while running from base to base, they are out; and the feeder may pretend to toss the ball, to induce a player to leave a base he is standing at, to obtain a chance of striking him and putting him out. Each in player takes the bat in rotation as he arrives at home. If all are out but two or three, and those are at the bases, and one be not able to reach home before the home is crowned by the ball, all are out, or if one of the strikers sends his ball so that it is caught, all his party are out. If all are out but two, the best player is allowed, with the consent of the others, to have two feeds or hits for the rounder, and if he gets home without being struck, or the home being crowned, all his party are in

again, and continue as before; if not, the opposite party goes in.

PALL MALL.

The Mall in St. James's Park derived its name from this game being constantly practised there during the reign of Charles the Second, by Charles himself, and his courtiers, but of late years it is scarcely heard of. The game is played with a piece of box and a mallet in an alley having an iron arch at each end, and he who drives the ball through the arch in the fewest number of strokes wins the game.

QUOITS.

An iron hob or pin is driven into the ground, to within four or five inches of the head; and at a distance of 14, 16, 20, or more yards, according to the age and strength of the players, a second pin is driven in, in a similar manner, and those who are contending in the game stand at one of the pins, and each throws an equal number of quoits to the other pin. The player who rings his quoit, or puts it nearest to the pin, scores one point to the game; but if A. puts a quoit nearest the pin, and B. places one second, and A. then places the remainder of his quoits nearest the pin after B., he still scores only one, as by B. putting his one quoit second, it prevents the other quoits being reckoned; but if B. does not succeed in placing a quoit to cut

out those of A., each of A.'s quoits counts as one. By having two pins the players can proceed from one to the other to determine the state of the game, and play on to each pin. This game is much practised in England, several grand quoit matches coming off annually. As an exercise, it is highly conducive to health. Strutt, in his *Sports and Pastimes*, says, that "the quoit seems evidently to have derived its origin from the ancient *Discus*."

BOWLS

May be played by sides of two or three each, or single players. Two balls are taken by each player, and the one who commences casts a smaller ball, frequently painted white, and called a jack, to any distance that suits him. He then delivers a ball towards the jack, each player following his example until all the balls are used; one of each side delivering a ball alternately. The position of the balls is then examined, and the one lying nearest to the jack scores one to the player, and if his other ball (or presuming the game is played with partners, either of their balls), should be nearer the jack than any ball delivered by his or their opponents, then they can score as many more towards the game as they have balls thus placed. The game should be played upon a closely shorn grass lawn, perfectly smooth and level. The balls played with are not perfectly round, being what is called biassed, having some mark at the thick

end, which end must be held towards the bowler's left hand. The aim of the player is to drive his opponent's ball away from the jack, or the latter away from the former, and at the same time place his ball as near the jack as he can.

The terms used in the game are, "to bowl wide," which is when the bias is good, or is not strong enough; "narrow," when it is too strong; "finely bowled," when the ball passes close to the jack; "yard over," is when the jack is moved; "over bows," when the ball passes beyond the jack. A ball is sometimes placed by a player purposely within his reach to obstruct the one who follows him, and is called "laid at hand;" placing the nearest ball to the jack, is called "bowl best at jack;" "drawing a cast," is to win by bowling nearest the jack, without touching a ball. A ball "rubs" when retarded in its motion by some impediment; and is "gone" when it passes far beyond the jack; a "lurch" is when one side scores eleven before their opponents have scored five, and is game.

HOP SCOTCH.

Draw on the ground a figure resembling a window arched at the top. The beds are formed in the following manner. At the end farthest from the arch a line is drawn from side to side, which is bed 1. Another like it, divided in the centre, forms beds 2 and 3. Bed 4 is like the first. The

next bed must be wider, with a cross drawn diagonally from corner to corner, for beds 5, 6, 7, and 8. Bed 9 is like the first, and 10 and 11 are like 2 and 3. Bed 12, at the arch, is called the cat's head. The one who commences throws an oyster shell into No. 1, he then hops into that bed, and with the foot on which he falls, drives it out. He then throws it into 2, steps into 1, hops into 2, drives the shell from 2 to 1, and then from 1 out of the figure. The shell is now thrown into 3, and the player steps into 1, jumps astride into 2 and 3, one foot in each base, springs on one foot into 3, drives the shell into 2, from 2 to 1, and out as before. He now throws the shell into 4, steps into 1, jumps astride 2 and 3, and alights upon one foot in No. 4, picks up the shell, and placing it on the front of his foot off the ground, jerks it upwards with a motion of the leg, and catches it in his hand. He then jumps back, repeating the same jumps as when he advanced. He throws the shell now into 5, and passing through the beds as before, alights on one foot in No. 5, drives the shell into 4, catches it, and returns as before. He now throws the shell into 6, drives it to 5, and then to 4, catches it and returns. When he is in 7, after jumping astride 6 and 7, he drives the shell into 6, 5, and 4; then out as usual. From 8 to 7, 6, 5, and 4, consecutively, returning as at first. In 9 he catches the shell from his foot, and returns as from 4. In 10 he drives it to 9. In 11, after jumping astride, he drives it into 10, then

into 9, catching it and returning as before. He now throws the shell into the cat's head, on arriving at which, he catches the shell three times from his foot, and then drives it with the foot he stands on, through all the beds, returning as usual out.

BLINDMAN'S BUFF

Consists in one person having a handkerchief bound over his eyes, so as to completely blind him; and thus blindfold, he is called "Buff," and chases the other players either by the sound of their footsteps, or their subdued merriment, as they scramble away in all directions, endeavouring to avoid being caught by him; when he succeeds in catching a player, and guesses his name rightly, the player caught must in turn be blindfold, and the game be recommenced. In some places, it is customary for one of the players to inquire of Buff (before the game begins) "How many horses has your father got?" to which inquiry Buff responds "Three." "What colours are they?" "Black, white, and gray." The questioner then desires Buff to "turn round three times, and catch whom you may," which request he complies with, by trying to capture one of the players. It is often played by merely turning the blindfold hero round and round, without questioning him, and then beginning. The handkerchief must be tied on fairly, so as to allow no means for Buff to see; and whenever he approaches any

thing that may hurt him, he should be warned, as by the cry of "table," "chair," &c.

SHADOW BUFF.

Shadow buff differs very materially from blindman's buff, but it is equally amusing. A sheet or table-cloth should be fastened neatly up at one end of the room, so that it hang free from wrinkles. Buff (not blindfold) seats himself on a low stool with his face to the sheet; a table, on which is a lighted candle, should be placed about four or five feet behind him, this being the only light in the room. Buff's play-fellows next pass in succession, between the candle and him, distorting their features in as grotesque a manner as possible, hopping, limping, dressing themselves in bonnets, shawls, cloaks, or other disguises, and performing various antics, so as to make their *shadows* very unlike themselves. Buff must then try to guess to whom the shadows belong; and if he guess correctly, the player whose shadow he recognises, takes his place. Buff is allowed only one guess for each person, and must not turn his head either to the right or left, to see who passes.

BUFF WITH THE WAND.

The several-players join hands, and form a circle around Buff, who stands in the middle, blindfold, and bearing a long wand or stick. The players then sing some chorus,

and dance once round, when they stop, and Buff stretches forth his wand, which the person touched must take by the end. Buff then cries out three times, and the player caught answers in a counterfeit voice; but, if Buff guess his name rightly, they change places. Should, however, Buff guess wrong, the wand is released, and he continues to guess until he names some one correctly. Sometimes Buff pays a forfeit on each failure, as does each player on being caught and named.

JINGLING.

This is a west-country sport, and may be played in a large apartment, or out-of-doors; if the latter, within a rope ring. A player has a bell fastened to his elbow, or holds one in his hand, which he keeps jingling, and whence he is called the jingler: he endeavours to avoid the several other players, who are blindfold, and who strive to capture him; the jingler may jump from and shun the others as he best may; whilst they follow the sound of the bell, and, not being able to see, tumble against, and over each other, thus affording great amusement to the spectators. Whoever catches the jingler within an agreed time, generally twenty minutes or half an hour, wins the prize; but if after this time the jingler be not caught, he is accounted the winner.

HUNT THE SLIPPER.

This old-fashioned pastime need scarcely be described

Several boys seat themselves in a circle on the ground, and another, who stands within the ring, gives a slipper to one of the players, by whom it is secretly handed to one of his neighbours; it is then passed round from one sitter to another, so as to completely perplex the "hunter," (or player standing in the middle), in his endeavours to find the slipper, and who must continue his search until successful; the player in whose possession it is found, must in his turn "hunt the slipper," whilst the former hunter joins the sitters. Sometimes, to mislead the hunter, a player raps the slipper on the ground, and instantly passes it on.

HUNT THE WHISTLE.

To a whistle should be attached a piece of string, and a bent pin for a hook. The players seat themselves on the floor in a circle, as for the Slipper, except one lad who has never before seen the game, and is to be the hunter. He conceals his face in a player's lap, whilst another hooks the whistle on to his jacket, then blows it, and dexterously lets it fall so that another player may as quickly pick it up, and blow it. The hunter naturally turns towards the player whence the whistling proceeds, but no sooner is it heard in one place than it is repeated in another; and thus the hunter is perplexed to find the possessor of the whistle, although it be hanging at his own back.

PUSS IN THE CORNER.

Four players take their stations in the four corners of a room, and a fifth called "Puss" places himself in the middle of it; the players in the corners then change their positions in a regular succession, and the Puss endeavours to gain one of the vacant corners before the successor can reach it; if he can do so, the player left out becomes Puss.

THREAD THE NEEDLE.

A number of boys all join hands, and the game is begun by the outside players at each end of the line holding the following dialogue: "How many miles to Babylon?" "Threescore and ten." "Can I get there by candlelight?" "Yes, and back again." "Then open the gates without more ado, and let the king and his men pass through." The player and the one next to him at the end of the line opposite the last speaker then raise their joined hands as high as they can, to allow the speaker to run under, and the whole line follow him, still holding hands. This should be done, if possible, without breaking the line by letting the hands go, and is styled "threading the needle." When all the boys have passed through, the dialogue is repeated, except that the player who before replied, now asks the question, and runs between the opposite players, the others following as before.

THE HUNTSMAN.

This game is one of the liveliest winter's evening pastimes that can be imagined: it may be played by any number of persons above four. One of the players is styled the "huntsman," and the others must be called after the different parts of the dress or accoutrements of a sportsman; thus, one is the coat, another the hat, whilst the shot, shot-belt, powder, powder-flask, dog, and gun, and every other appurtenance belonging to a huntsman, has its representative. As many chairs as there are players, excluding the "huntsman," should next be ranged in two rows, back to back, and all the players must then seat themselves; and, being thus prepared, the "huntsman" walks round the sitters, and calls out the assumed name of one of them; for instance, "Gun!" when that player immediately gets up, and takes hold of the coat-skirts of the "huntsman," who continues his walk, and calls out all the others, one by one; each must take hold of the skirts of the player before him, and when they are all summoned, the huntsman sets off running round the chairs as fast as he can, the other players holding on and running after him. When he has run round two or three times, he shouts out "Bang!" and immediately sits down on one of the chairs, leaving his followers to scramble to the other seats as they best can. Of course, one must be left standing, there being one chair less than the number of players, and the player so left must pay a





forfeit. The game is continued until all have paid three forfeits, when they are cried, and the punishments or penances declared. The huntsman is not changed throughout the game, unless he gets tired of his post.

THE GAME OF THE KEY.

This game may be played by any number of persons, who should all, except one, seat themselves on chairs placed in a circle, and he should stand in the centre of the ring. Each sitter must next take hold, with his left hand, of the right wrist of the person sitting on his left, being careful not to obstruct the grasp by holding the hands. When all have, in this manner, joined hands, they should begin moving them from left to right, making a circular motion, and touching each others' hands, as if for the purpose of taking something from them. The player in the centre then presents a *key* to one of the sitters, and turns his back, so as to allow it to be privately passed to another, who hands it to a third; and thus *the key* is quickly handed round the ring from one player to the other; which task is easily accomplished, on account of the continued motion of the hands of all the players. Meanwhile, the player in the centre, after the key has reached the third or fourth player, should watch its progress narrowly, and endeavour to seize it in its passage. If he succeed, the person in whose hand it is found, after paying a forfeit, must take his

place in the centre, and give and hunt the key in his turn; should the seeker fail in discovering the key in his first attempt, he must continue his search until he succeeds. When a player has paid three forfeits, he is out.

THE TWO HATS.

This is a Neapolitan game, and from the contradictory nature of its words and actions, resembles the child's pastime of "the rule of contrary." The rules are that, if three mistakes be made by the person who responds to the inquiries of the player bringing the hats round, and whom, for distinction's sake, we will call the Questioner,—he must pay three forfeits, and be out of the game; when the questioner desires the respondent to be seated, the latter must stand up; when he begs him to put his hat on, he must take it off; when he requests him to stand, he must sit; and in every point, the respondent must do the reverse of what the questioner tells him. The questioner may sit down, stand up, put his hat on, or take it off, without desiring the respondent to do so, or giving him the least intimation of his intention; the latter must, therefore, be always on his guard, so as to act instantly to the contrary, else he incurs a forfeit. These rules being settled, the game is simply this:—a player places a hat on his head, takes another in his hand, and gives it to one of the company; he then be-

gins conversing with him, endeavouring both by words and actions to puzzle him, and cause him to *forfeit*. The following is a specimen of a dialogue, and the accompanying movements of the hats, in which A. is the questioner, B. the respondent :—

A. (*taking his hat off.*) A very beautiful evening, sir.

B. (*putting his hat on.*) Yes, indeed, a most lovely one.

A. (*putting his hat on and sitting down, B. instantly taking his off and getting up.*) Pray be seated, sir; I really cannot think of sitting while you stand; (*gets up, and B. sits down.*) Have you been out of town this year? (*takes off his hat.*)

B. (*putting his on.*) I have not yet, but I think I shall before (*A. sits down and B. gets up*) the beauty of the season has entirely passed away, venture a few miles out of town.

A. (*putting his hat on.*) I beg ten thousand pardons, you are standing while I am sitting; pardon me, your hat is on, you must pay a forfeit.

It generally happens, that before the dialogue has been carried thus far, the respondent has incurred three forfeits, and is, of course, out; the questioner then goes in succession to the others, and the same scene is repeated by each; the conversation, it is almost needless to add, should be varied as much as possible, and the more absurd the better.

PENANCES FOR FORFEITS.

As the three foregoing games end with crying the forfeits incurred in them, and as there are many other games for long winter evenings, which our limits compel us to omit, ending in the same manner, we subjoin a few penances (of Neapolitan origin), to be imposed on those who have been unfortunate enough to incur them.

1. THE KNIGHT OF THE RUEFUL COUNTENANCE. The player whose forfeit is cried, is called the "Knight of the rueful countenance:" he must take a lighted candle in his hand, and select some other player to be his squire Sancho Panza, who takes hold of his arm, and they then both go round to all the ladies in the company. It is the squire's office to kiss the hand of each lady, and after each kiss to wipe the knight's mouth with a handkerchief, which he holds in his hand for the purpose. The knight must carry the candle throughout the penance.

2. THE COUNTRY TABLE. In this penance the owner of the forfeit selects some one to be secretary, then kneels down upon his hands and knees on the floor, to represent the table, and his secretary takes his stand beside him. One of the company next dictates to the secretary, who should move his hand on the back of the kneeling player, as if he were writing a letter; the dictator must call out "comma!" when he wishes that stop to be made, which the secretary responds to by making a motion with his finger on the

“country table,” resembling that stop; a “semicolon” by giving a knock with his fist on the table and making a comma; a “colon,” by giving two knocks; and a “full stop,” by one. For the sake of losing as little time as possible in one forfeit, it is not necessary to request more than the points or stops to be made on the “country table.”

3. JOURNEY TO ROME. The person whose forfeit is called, must go round to every individual in the company to tell them that he is going on a journey to Rome, and to assure them if they have any message or article to send to his Holiness the Pope, he will feel great pleasure in taking it. Every one must give something to the traveller, no matter how cumbrous it may be, or awkward to carry (indeed, the more inconvenient the articles are, the more it increases the merriment), until he is literally overloaded with presents. When he has gathered from all, he walks to a corner of the room, puts the articles down, and so his penance ends.

4. THE CUSHION. The owner of the forfeit takes a cushion, and gives it to one of the company, who then kneels down on the floor, holds the cushion a little before him, and requests the bringer to kneel down on it; as the latter attempts to kneel, the former slides the cushion away, so that the unlucky wight kneels on the carpet instead; should he, however, be fortunate enough to kneel on the cushion at once, he takes it to the next player; but if not, he must

continue his attempts until he is successful. The cushion is to be given to every one in the room in rotation, and the kneeling penance above described repeated before each.

5. THE STATUE OF LOVE. The player who owns the forfeit cried, takes a candle in his hand, and is led by another to one end of the room, where he must stand and represent the Statue of Love; one of the players now walks up, and requests him to fetch some lady, whose name he whispers in Love's ear; the statue, still holding the candle, proceeds to execute his commission, and brings the lady with him; she in turn desires him to fetch some gentleman, and so it continues till all have been summoned. The players brought up by Love, must not return to their seats, but stand in a group round Love's standing-place, until he has brought the last person in the company, when they hiss him most vigorously, and the forfeit terminates.

SCHIMMEL, OR THE BELL AND HAMMER.

To play this amusing game requires five cards of figures, viz. a white horse, an inn, a bell, a hammer, and a bell and hammer; eight little ivory cubes, marked on one side only; six numbered 1, 2, 3, 4, &c., and the other two marked, one with a bell, and the other with a hammer; a box for throwing the dice; a hammer for disposing of the cards by auction, and a proportionate number of counters for the players. The game may be played by as many persons as are present.

The counters are then to be distributed by one of the party who has the office of cashier; their value having been previously determined upon by the players. This being done, twelve are to be deposited by each player in the pool. The cashier then disposes of the five cards, separately, to the highest bidders, the produce being also placed in the pool. The bidders are not bound to confine themselves to the number of counters dealt out to them at the beginning of the game; should they exceed it, they may pay the remainder of the debt by instalments, out of their receipts in the course of the game.

Each person is at liberty to purchase as many cards as he may think proper.

The dice are to be thrown by the players alternately, beginning with the holder of the White Horse; any one being allowed to dispose of his throw to the highest bidder. When all blanks are thrown, each of the players pays one to the holder of the White Horse, and he pays one to the Inn. If with the blanks, the Bell, or Hammer, or the Bell and Hammer together, are thrown, the possessor of the card so thrown pays one to the White Horse.

When numbers accompany the Bell, Hammer, or Bell and Hammer, the cashier is to pay counters, to the amount of numbers thrown, to the holder of such card, from the pool; but if numbers be thrown unaccompanied, the cashier then pays to the thrower.

When the pool is nearly empty, there arises an advantage to the Inn, for if a player throws a figure greater than the quantity contained in the pool, he pays the overplus to the Inn, thus: suppose 4 are in the pool, if the player throw 10, he is to pay 6 to the Inn; and if 2 be thrown, those 2 are paid to him from the pool, and so on till a figure is thrown which clears the pool, and concludes the game.

If all blanks be thrown after the Inn begins to receive, the players pay nothing, but the owner of the White Horse pays one to the Inn; should the Bell, &c., be thrown with the blanks, the holder of that card pays one to the Inn; and if numbers accompany the Bell, &c., the holder of that card must pay to the Inn the number thrown above those remaining in the pool.

DIBS.

The Dibs are five of the small cramp or trotter bones of sheep, with which various feats are performed. First, the player extends his first and middle finger, and having placed on the back of them a Dib, he throws it up, and catches it in his hand, or on the inside or back of his fingers; and then increases the number of Dibs to two, three, four, and five, which are thrown up separately or together. A single Dib is then held between each of the fingers and thumb of the left hand, whence they are thrown in regular succession to the right hand; and the modes of jerking and picking up the Dibs may be amusingly varied. The order of the game

is, that as soon as one player fails in the feat he attempts, another player takes up the Dibs.

THE GAME OF FINGERS.

This game, also called Mora, is of great antiquity; its invention being ascribed to Helen, who, it is said, was accustomed to play at Mora with Paris, the son of Priam. The game may be played by two or four persons, and usually consists of six points; but this is settled by the players, who then present as many fingers as they choose, calling aloud some particular number; and, if either of the numbers thus mentioned agree with the amount of fingers presented, he who named it counts one toward his game, by holding up a finger of the left hand, or sometimes a fist or elbow. But neither player is permitted to count it; on the contrary, both numbers are incorrect. When a player exclaims "all!" he must display his open hand; and the point is won if his rival, at the same time, exhibit all his fingers.

Dumb Mora is played as above, but with this exception: that instead of calling the numbers, the players, before they commence the game, agree by what mode they shall designate odd and even; after which, whoever utters a syllable, incurs a forfeit. Should any difficulty arise during the progress of the game, but no words are allowed to be spoken, but the required explanation must be given and received by signs

DUMB MOTIONS.

This dramatic game exercises considerably more ingenuity than its name implies. It is played by sides, who toss up for innings. The winning side retire to some distance, and choose some trade or professional employment, which may be *acted*, or represented by "Dumb Motions." They then advance to the other side, and one of them calls out the first and last letter of the name of the trade they are about to represent. Thus, suppose it to be B——r, (Bricklayer); some of the players imitate with their hands the spreading of mortar and laying of bricks; another appears to carry on his shoulder the hod, &c. Or, if the letters be S——n, (Stonemason), some appear to be chipping stone, and others sit as if they were sawing stone: the more mechanical the trade the better. Each of the opposite side then guesses within a few minutes, and if neither be correct, the trade is named by the "in" party, who choose another trade. But, should the trade be rightly guessed, the sides change places. Should either of the side misrepresent the trade, or speak during the work, or name the letters incorrectly, the whole side are *out*, and a workman is not unfrequently thrown off his guard, by the opposite party asking him a question, which, if he answer, he is at fault. Sometimes, the working side are called *men*, and those who guess are *masters*.

SNAP-APPLE.

This is a Christmas sport, and is played as follows: An apple is fixed upon one end of a short stick, to the other extremity of which is fastened a lighted candle. A string is then tied to the middle of the stick, by which it is suspended from the ceiling at such a height that the young people may catch or "bob" at it with their mouths, their hands being tied behind their backs.

SNAP-DRAGON

Is another Christmas pastime. A dish of raisins being prepared, some heated brandy or spirits of wine is poured over the fruit, and then set on fire, the other lights in the room being extinguished. The young folks then stand round the dish to pluck out the lighted raisins, and eat them as hastily as they can, but rarely without warming their hands and mouths. The blue flames of the burning spirit, and the singular and spectral appearance which they give to the faces of the busy crowd, are a source of considerable merriment.

DRAWING THE OVEN.

Let any number of boys seat themselves, one behind the other on the ground, and clasp each other round the waist; two players should then take hold of the foremost sitter, by both his hands, and endeavour to detach him from the line, by pulling away vigorously. When they have suc-

ceeded in doing this, they take hold of the second sitter in the same manner, and so continue "drawing the oven," until they have drawn all the players from the ground. This game is also called "Jack, Jack, the bread burns."

HOPPING BASES.

Sides are chosen, and each player has his opponent; and the parties enter their bases formed by a line drawn the length of the ground. Each player then folds his arms, hops on one leg, and strives to get into the opposite base; which should he do, the vanquished one must retire from the game. The victor in this instance may then return to aid his own party; and the game is won by those who, whilst hopping, take entire possession of the enemy's base. Should any player drop the leg, he is out of the game.

WHOOOP.

One player takes his station at a spot called the "home," while the others go to seek out various hiding-places in which to ensconce themselves; when all are ready, one of them calls out "Whoop!" on which the player at the "home" instantly goes in search of the hidiers, and endeavours to touch one of them, as they all run back to "home;" if he can do so, the one caught takes his post at the home, and he joins the out-players.

FRENCH AND ENGLISH.

This is an exceedingly lively and amusing game: it is played by two parties, as nearly equal in numbers and strength as can be mustered; one party take hold of one end of a strong rope, whilst their antagonists take hold of the other; each party then strive to pull the other over a line chalked or marked on the ground for the purpose, and those who are so pulled over, being made prisoners, lose the game.

TAG OR TOUCH.

Any number of boys can play at this game, which is an exceedingly spirited one. One of the players undertakes to be "Tag," or "Touch," and endeavours to touch one of the others as they are running about in all directions, trying to avoid him as much as possible; if he can touch one, the player caught becomes Touch, and in his turn strives to touch one of his fellow-players. "TOUCH IRON" and "TOUCH WOOD" are frequently called; and when the boys can touch either iron or wood, Touch has no power over them; but the moment they quit either, they may be "touched;" and sometimes a Touch makes prisoners.

CROSS-TOUCH.

In this sport, when Touch is following one player, another runs across his path, between him and the party pursued;

upon which Touch must immediately run after the one who crossed, until some other crossing between them, must, in his turn, be followed; and so it continues changing, until Touch catches one, who takes, of course, the office of Touch, and the game is continued as before.

HUNT THE HARE.

One boy is chosen "Hare," and runs out, when, his comrades having given him "law," that is, time to run a certain distance, they then give chase and endeavour to catch Hare before he returns home.

BASTE THE BEAR.

The players toss up for the first Bear, who kneels on the ground within a marked circle; each selects his own master, whose office it is to hold him by a rope, and use his utmost efforts to touch one of the other players, as they try to "baste" the Bear with their handkerchiefs knotted and twisted very tightly. If the Bear's master can touch one of the assailants without dragging the Bear out of the ring or letting the rope fall, the boy touched becomes Bear, selects his keeper as before mentioned, and the sport is continued.

HIDE AND SEEK.

In this game one of the players hides a handkerchief, or

any little article which can be easily secreted, and then desires the other players to find it; the successful seeker, in his turn, hiding the same thing next time. When the seekers approach the place of concealment, the player who hides the article must answer their questions, whether "they burn;" and on the contrary, when they wander from it, he should tell them that they "freeze." The Greeks had a pastime similar to our Hide and Seek: a boy seated himself in the midst of his comrades, and closed his eyes, or was blindfolded by the hand of another, whilst the rest concealed themselves; and he who was first found by him after he was permitted to rise, took his place. There is another kind of Hide and Seek, called also Whoop and Hide; where one party of boys remain at "home," while the others go out and hide themselves; when they are hid, one of them cries "Whoop," as a signal for those at home to seek after them. If the hidden can escape the vigilance of the seeker, and reach home unseen, they go out to hide again; but so many of them as are caught, on the contrary, become seekers, and those who catch them have the privilege of hiding themselves.

DUCK STONE.

This game cannot be played by fewer than three boys; and if the number be eight or ten, its interest and liveliness are increased. It should not, however, be played roughly

or carelessly, as the players, through negligence, may injure each other from the weight of the stones, and the force with which they must be cast. A large smooth and flat-topped stone is placed on the ground, and at about six or eight yards distance is marked "home." Each player next provides himself with a pebble stone somewhat larger than a cricket-ball; and the game is begun by "pinking" for "duck," *i. e.* by all standing at the "home," and throwing their pebbles in succession at the large stone; and the player whose pebble falls or rolls furthest from the large one, becomes Duck, and must place his stone on it. The other players next cast their pebbles at it singly, from the "home," and then hasten to pick up their pebbles, so as to throw again; but, if Duck can touch either of them before he reaches "home," and should Duck's own pebble not be knocked off the large stone, then the thrower thus touched becomes Duck; but, if he be quick, he may call out "Double duck" before Duck is able to kick his own pebble off the large stone, or cry out "Feign double duck," in which case both the "ducks" are to be placed on the stone together. Sometimes, the "duck" remains on the stone after four or five have thrown at it, when they allow their pebbles to rest, but in attempting to pick them up, Duck may touch either of the throwers; till, at length, another player knocks Duck's pebble from off the large stone; and

AS no one can be touched until it has been replaced the several players gain time to pick up their pebbles, and reach "home" for safety. Should all the players have thrown without being able to knock the "duck" off, it is frequently proposed by one, or more, to Duck, to take either a "heeler," a "sling," or a "jump," towards "home," in order that they may have a chance of reaching it. The "heeler" is performed by kicking the stone backward toward "home;" the "sling," by putting the stone on the middle of the right foot, and slinging it in the direction of "home;" and the "jump," by placing the stone between the feet, and holding it there, while a jump is taken, and the stone let fall, so that it may roll forward; if the stone be so far from "home," that one sling, jump, or heeler will not suffice, two, or more of each may be taken, provided Duck allows it; but if the player does not reach "home" in the number of slings, &c., agreed on, he becomes Duck.

SADDLE MY NAG.

Two leaders should toss up for choice of sides, and each having selected six or eight partners, they should toss again for innings; the loser must then place himself quite upright, with his face to a wall, against which he rests his hands, and one of his partners should next stoop down, and put his head against his leader's skirts; another partner also bends, and places his head against the skirts of the second

player, and the rest of the partners must take their places in the same manner, one behind the other; when thus ranged they are called "Nags." One of the winning party next runs, and placing his hands on the back of the last Nag, cries "Warning," endeavours to spring on to the back of the first, or at least to clear as many Nags as he can, so as to leave room for those following him to leap on the backs of the other Nags, until they are all fairly astride. If any of the Nags sink under the weight, or in trying to support themselves, touch the ground either with their hands or knees,—or if the riders can keep their seats without touching the ground, whilst their leader counts twenty,—the riders resume their innings, and begin again; but should there not be sufficient space for all to leap on, or they are unable to keep their seats on the backs of the Nags, they lose their innings, and become Nags in their turn. The Nags may also cry "Weak horse!" when, if the riders do not instantly dismount, *they* must become Nags.

BUCK

Is played by two boys, pretty nearly equal in size and strength; while a third is appointed umpire, to see that the rules are correctly followed, and no unfair advantage taken. One player then gives a back, that is, stooping down, as in leap-frog, and resting his head against a wall; the other player then springs on his back, and holding up as many

fingers as he pleases, calls out "Buck, Buck, how many horns do I hold up?" Buck endeavours to guess the probable number; if his guess be incorrect, the rider gets down, leaps on again, holds up his fingers, and repeats the question as before; and so continues, until Buck names the right number, when the rider must take the place of Buck, and Buck in turn jump on his back. It is, of course, unnecessary to hold up the same number of fingers every time the question is asked. Buck is usually blindfolded to prevent foul play, but this precaution is not requisite.

PRISONER'S BASE

Is a very lively and amusing game, and is played as follows: Two captains being appointed, they "eleep" for partners, *i. e.* they advance towards each other, by bringing, alternately, the heel of one foot to the toe of the other, until at last there be not room for one of them to put his foot down between the toe of his opponent and his own; this player has the first choice of partners. The best number for this game is seven or eight players on each side, although it may be played with either more or less. The bases are then drawn at one end of the ground, and are divided by a line, on each side of which the players stand. At some distance are marked the prisons, generally in corners of the ground; the prison of one party facing the base of its opponents, and lying crosswise from the base of its own party.

The game is begun by a player from one side running out between the bases and the prisons, when he is quickly followed by one of the opposite party, who endeavours to catch him; a partner of the first player next dashes out to capture the second, and so on, both sides sending out as many of their partners as they please, to touch or take their opponents. But a player must not touch any one who started after him, although the latter may, if he can, touch him before he gets back to his own base; but if a player has taken a prisoner, he cannot be touched in making his way back to his base again. A player can touch only one of his opponents each time he leaves his base; and every prisoner must be taken to the prison of the opposite party, where he remains till one of his own partners can manage to touch him; and this may be aided by the several prisoners holding each other by the hand in an extended line, so as to reduce the distance from the base. The player coming to rescue the captive must also have started from his base after the other has been taken; and the released prisoner and his companion are not allowed to touch any one, or to be touched, as they return home. The victors are those who can contrive, at the same period, to make all their opponents prisoners. Or, instead of the prisoners being rescued, they are drafted into the enemy's base, and the game is terminated by all the players thus passing to one side.

Prisoner's Base is mentioned in proclamations in the reign of Edward III.; and Shakspeare speaks of "the country base." The game was formerly played by men, especially in Cheshire, and the adjoining counties.

RUSHING BASES.

Draw two bases, with a wide space between them. All the players then station themselves in one base, except one boy, to be "King Cæsar," by choice or otherwise, and he places himself midway between the bases. The men then attempt to run from one base to the other, and the King strives to catch them; and whenever he takes one, he claps him on the head and cries thrice, "Crown thee, King Cæsar!" and he must thenceforth assist his Majesty in catching the rest of the men, each of whom must, as he is taken, join the royal party; the last man captured being King for the next game. The crowning must be distinctly pronounced thrice, else the captive can be demanded by his party

STAG OUT.

A line should be drawn on the ground, at a little distance from a wall, to form "the bounds," and within which one of the players, as the "stag," stations himself; he then springs out, with his hands clasped firmly together, and endeavours to touch one of the other players, who all run

from him. Should he succeed in touching one, he rides on his back home to the "bounds," and the player thus touched becomes Stag.

WARNING!

Any number may play at this game. A base should be drawn at about four feet from a wall, within which one of the players takes his station, and after calling out, "Warning, once; warning, twice; warning, thrice; a bushel of wheat, a bushel of rye; when the cock crows out jump I. Cock-a-doodle-doo!"—he jumps out and runs after the others; if he touch one, they both return to the bounds, where they unite hands, and after crying "Warning!" only, rush out again, and each strives to touch an opponent; if they can achieve this, they all return and join hands as before; the next time they sally forth, the outside players *only* try to touch; of course, every one they touch returns to "bounds" with them, and joins the line. Should the out-players attack, break the line, and put the party to the rout, which it is always their object to do, the discomfited players must scamper back to "bounds;" this the out-players endeavour to prevent by capturing them, which, if they can accomplish, the captives are compelled to carry their captors back to bounds. After a player has sallied from the bounds, and has touched one of the out-players, he should run home with all speed, to avoid being caught by

their opponents. When three players have been touched, the one who began the game may join the out party.

SEE-SAW.

For this amusement a stout plank should be laid across a felled tree or a dwarf wall ; it must be very nicely balanced if the players be of the same weight, but if one be heavier than the other, the end on which he intends to sit, should be the shortest. Two players then take their seats on the plank, one at each end, whilst a third stations himself on the middle of it ; the name of this player is, in some places, "Jack o' both Sides," and in others "Pudding." As the players by turns make slight springs from their toes, they are each alternately elevated and depressed ; and it is the duty of Pudding to assist these movements by bearing all his weight on the foot on the highest end of the plank, beyond the centre of the tree or wall on which it rests.

A see-saw is one of the earliest lessons in mechanics. The cross plank is the *lever*, or first mechanical power ; and its supporter, the felled tree, is the *fulcrum*, or prop by which the *lever* is sustained. A reckoning-stone is a natural see-saw.

LEAP-FROG.

This game will be best understood by supposing that eight boys are playing at it : seven of them stand in a row, about

eighteen feet apart, with their sides to the leapers, hands on their knees, body doubled, and head bent down. The eighth player then takes a short run, and, placing his hands on the back of the first player, leaps over him, then over the second, and, in like manner, over all the other players, one after the other; he then places himself down in the line, in the proper position, and at the right distance from the last player; the first over whom he jumped, rises immediately he has passed, and follows him over the second, third, &c., who all rise in succession, and leap in their turn; and after they have successively jumped over the last players, they place themselves down in the line, as before described; and the game continues. Some players stand with their backs to the leapers, instead of their sides; the mode is optional, although in some places it is usual to compel those who can jump over the head, to do so.

FLY THE GARTER.

Chalk or make a line, or "the garter," on the ground; on this line one of the players must place himself and bend down as in leap-frog, while the other players in rotation leap over him; the last one, as he flies over, calling out "Foot it;" if he should fail in giving this notice, he is out, and must take the other boy's place at the garter: the boy, immediately the word is given, rises, and places his right

heel close to the middle of the left foot, he next moves the left forwards and places that heel close up to the toes of his right foot, and bends down as before; this movement is called a "step," and is repeated three times. The other players should fly from the garter each time a step is made, and the last player must invariably call out "Foot it," as he leaps over. After making the three "steps," the player giving the back takes a short run; and, *from* the spot where he made his last step, he jumps as far forwards as he possibly can, and bends down again; the others jump from the garter, and then fly over. Should any of the players be unable to jump easily over the one giving the back, and rather slide down upon, or ride on him, the player so failing must take the other's place at the garter, and the game be recommenced; if, also, through the impetus acquired in taking the jump from the garter, a player should happen to place his hands on the back of the player bending down, and then withdraw them in order to take the spring over, he is out, and must take his turn at the garter. Sometimes, the boy giving the back takes a hop, step, and a jump after he has footed it three times; the other players doing the same, and then flying over.

DUCK AND DRAKE

Is played by "shying" bits of slate, or tile, the flat shells of oysters, or thin smooth stones, on the surface of a pond.

Whatever is used should be "shied" so that it may merely touch the surface of the water, otherwise it will not rebound several times, which it is the aim of the player to make it do; if it rebound once, it is a "Dick;" if twice, a "Duck;" if thrice, a "Dick, Duck, and Drake;" and that player wins the game whose slate or shell rebounds the oftenest.

KING OF THE CASTLE.

One player stations himself on a mound of earth, or eminence, and styles himself "King of the Castle:" from this station his playmates endeavour singly to pull or push him off, whilst he exerts his utmost efforts to repel them, and maintain his position. Whichever player dethrones the king, takes his place.

DROPPING THE HANDKERCHIEF.

A tolerably large ring should be formed by several boys joining hands: when all are ready, another boy who stands out, walks round outside the ring, drops a handkerchief behind one of the players, and immediately runs off; he is instantly followed by the boy behind whom he dropped the handkerchief, and who must track him in all his windings in and out, under the raised arms of the boys in the ring, and indeed wherever he runs; should the pursuer touch the pursued, the former takes the handkerchief in his turn, and the latter joins hands in the circle. If the boy who dropped

the handkerchief be enabled to elude his follower by passing through and about the ring, the latter walks round again, and drops it behind some other player.

HOP, STEP, AND JUMP,

Is a trial as to which of the players can go over the greatest space of ground in a hop, step, and a jump, made one after the other, without stopping. They may be commenced either with a short run, or else standing, at the option of the players.

CASTING THE BALL.

Casting the wooden ball is an excellent recreation. A bowl similar in pattern to those used in skittle-alleys—not those used for nine-pins—should be procured; it must not, however, be so large nor so heavy as the bowls used by men, neither should the finger-holes be so wide apart; and the size and weight should always be adapted to the size of the person using it. In casting the ball, put your thumb in one of the holes, and your middle or forefinger in another, and then throw it underhanded either to a mark, or at random to a distance.

TWO TO ONE.

Two to One is a capital exercise with a common skipping-rope. It is done by skipping in the usual way for a short time, and then increasing the rapidity of your movements,

and leaping tolerably high ; at the same time, endeavouring to swing the rope round so quickly, as to pass it twice under your feet whilst leaping : practise this until you are proficient, and then try to pass the rope three times under your feet instead of twice.

LONG ROPE.

The rope is held each end by a boy, and turned pretty regularly ; and, when the line is at its highest, one, two, or more boys step forward between the holders, and jump up as the rope descends, so as to let it pass under their feet like the common skipping-rope. The leapers should keep time with the turns of the rope ; and, if it touch either of them, he must change places with one of the holders. Another game may be played by holding a long skipping-rope at one end in the outside hand, making a step or two towards the other player, with his "help" at the other end swinging it round, and then skipping over it.

THE SNOW STATUE.

Making a snow statue forms a capital amusement when the fields "put on their winter's robe of purest white," and the icicles hang glistening from the eaves. In order to amass snow enough for the purpose, it should be swept up into one spot, or, to insure the snow being clean, a large snow-ball should be made, and rolled about until it becomes huge and

unwieldy. The material being thus provided, the statue should be rounded and shaped as neatly as possible; and, if the young artists possess ingenuity enough to make their work look something like a *man*, and not a heap of snow, so much the better. The modellers now, by common consent, withdraw to a stated distance and begin to pelt their handy-work with snow-balls, until the gigantic figure falls, feature by feature, amidst the shouts of the joyous throng.

A lively game is likewise afforded by one party building a fortification of snow, behind which they post themselves; and, having provided themselves with snow-balls, they repel the attacks of another party from without, who endeavour to drive them from the work, by pelting them vigorously with snow-balls; the besieged, of course, returning the shower of balls. These balls should not, however, be pressed too tight, else they may be so hard as to render the mimic siege a dangerous one.

Sir Walter Scott relates of Napoleon Buonaparte, that when at school in Brienne, he, one winter's day, engaged his companions in the play-ground in constructing a fortress out of the snow, regularly defended by ditches and bastions, according to the rules of fortification. It was attacked and defended by the students, who divided into parties for the purpose, until the battle became so keen that their superiors thought it proper to proclaim a truce.

SNOW AND ICE HOUSES.

The building of houses with snow, which boys sometimes practise as a pastime in this country, is a matter of necessity in the Arctic regions. Sir John Ross tells us that in the newly discovered peninsula of Boothia, the poor Esquimaux build villages of snow huts, having the appearance of inverted basins, and lit by windows of clear ice. They are built with wedge-shaped blocks of snow, the joints being also fitted in with snow; and so rapidly is this done, that a house is often roofed within an hour; and a tent is scarcely built in less time. The Esquimaux children have also a toy architecture of their own, and build houses with equal dexterity.

We read, too, of mansions being built entirely of ice, in some northern countries. Such was the magnificent ice-palace of the Empress Anne, which was erected at St. Petersburg, in January, 1740. It was 56 feet in length, and 21 feet high; it was built of the most transparent ice, cut from the Neva in large blocks, which were squared with rule and compass; and water being poured between the blocks, it froze and served as cement or mortar. The interior was completely fitted up; a bed-room had a suite of furniture entirely in ice. On the outside of the palace were cannons and mortars from which iron balls were fired. The whole fabric lasted about ten weeks, and then melted away. In the same year, a winter of unusual severity, a

German carved in ice at the gate of Holstein, in Lubeck, a lion seven feet long, surrounded by a bulwark of ice, on which were placed five cannons, a soldier, and a sentry-box, all of ice.

FOLLOW MY LEADER.

A spirited boy should be chosen as Leader, and the other players must follow him in a line: he commences the game by jumping, running, hopping, or getting over any obstacle that may present itself, and then continues his course, scrambling over everything, and varying his actions as much as possible; all his followers must strictly follow "the lead:" thus, if he jump over a ditch, they must clear it; if over a gate, they must do that also; and in everything *follow* or imitate him as closely as possible. If any player fail in performing the task, he must take his place behind all the rest, until some other player makes a blunder, and in his turn goes last.

HIPPAS.

This pastime consists in one boy endeavouring to pull another from the shoulders of a third player, who carries him as on horseback: if he pull his opponent off, he takes his place. This game should not be played on rough or stony ground, but upon soft turf.

WALK! MY LADY, WALK!

This game may be played by any number of boys, who all tie large knots in one corner of their pocket-handkerchiefs, and then toss up a halfpenny, to see who shall be "My Lady;" the loser is the one to whom the part falls, and he must be blindfolded and stand a little on one side, while the others go in succession to a spot marked on the ground, and jerk their handkerchiefs between their legs, as far behind them as they possibly can, and in whatever direction they please. When all the boys have done this, My Lady is conducted to the place marked on the ground, and desired to "Walk! my Lady, Walk!" which she, or *he* rather, complies with by advancing until he treads on one of the handkerchiefs, when instantly the other players pick up their handkerchiefs and compel the unlucky owner of the one trodden upon by the Lady, to run the gauntlet of a good drubbing from the knotted end of theirs; after which he becomes the Lady, and the game continues as before.

THE SWING.

To a timber beam, or the stout limb of a tree, fasten two strong ropes of equal lengths, and at the ends of them tie a seat as firmly as possible. A player takes his place on the seat, and motion is then given to the swing by another player pulling a rope attached to the back of the seat. In putting up the swing, care should be taken that the ropes,

and whatever they are fastened to, are strong enough, and that there is nothing in the way which might be the means of causing mischief to the swinger.

THE PULLEY.

Fasten a pulley to a horizontal beam of wood, by a staple, or to the strong branch of a tree; pass a rope through it, and at each end of the rope tie a cross piece of wood; two boys must take firm hold of these pieces, one should lie down on his back, and let the other pull him up by sinking himself as he elevates his playmate; in his turn, he is raised in the same manner by his companion, and the sport is thus kept on, each rising and sinking alternately, somewhat after the fashion of see-saw.

SLIDING.

Sliding on the ice appears to have always been a favourite pastime among young persons in cold climates. It would be useless to insert any instructions for its practice; for a few falls on the ice will be far more impressive than all the lectures contained in the pages of drowsy instruction.

A kind of sledge, consisting of a circular seat, with a strong rope affixed to it, may be sometimes seen upon the ice; and the rider having seated himself, is drawn about by his companions, or whirled round with great velocity until he is unseated.

"JACK! JACK! SHOW A LIGHT!"

This game can only be played in the dusk of evening, when all the surrounding objects are nearly lost in the deepening gloom. The players divide into two parties, and toss up for innings, which being gained, the winners start off to hide themselves, or get so far away that the others cannot see them—the losers remaining at the "home." One of the hiding party is provided with a flint and steel, which, as soon as they are all ready, he strikes, and the sparks guide the seekers in the direction they must take to capture the others ere they reach "home;" if they cannot touch more than two of the boys, the hiders resume their innings, and the game continues as before. It is usual, however, for the boys at the "home" to call out "Jack, Jack! show a light!" before the possessor of the flint and steel does so. When one party is captured, the flint and steel must be given up to the captors, that they may carry on the game.

GYMNASTIC EXERCISES.

TRAINING.

PRIOR to commencing a course of Gymnastics, the body should be in good health, and partially trained by exercises in walking, running, and jumping.

IN WALKING

The head should be kept up, the body erect, but not stiff, resting upon the ball of the foot, not on the toe or heel, the shoulders thrown back, and the arms allowed to move freely by the side.

IN RUNNING

The arms should be kept nearly still, the elbows to the sides of the body, bringing the closed hands in front on the chest, and the legs must not be raised too high.

IN JUMPING

The knees should be bent so that the calves of the leg may touch the thigh. The fall should be on the toes, and never on the heels. The arms should swing forward when taking a spring, the body kept forward, the breath held, and in

taking the run let your steps be short, and increase in quickness as you approach the leap, coming to the ground with both feet together.

THE HIGH LEAP

May be taken either standing, or with a run. For the former keep the legs together, raising the feet and knees in a straight direction. For the latter a light step with a short run quickening gradually as you approach the object you wish to leap over.

THE LONG LEAP

Requires the spring to be made from the toes of one foot, and the arms and body to be kept forward

THE HIGH LEAP WITH THE POLE.

The pole should be taken with the right hand level with the head. Spring with the right foot over what you wish to clear; and as you alight, turn round, bringing your front towards the place you leap from.

THE LONG LEAP WITH THE POLE.

The pole must be firmly placed, and the body thrown forward, turning round as you cross the place you have to leap over.

THE DEEP LEAP WITH THE POLE.

The same rules as for the last. Throw the body forward and lower the pole to the depth you have to leap, coming to the ground upon the balls of the feet.

LIFTING AT ARM'S LENGTH.

The pole is taken in the hand, and elevated in a right line with the arm, which must be stretched out at full length.

THE ROPE.

In climbing the rope, the hands must be moved one above the other, the feet to be drawn up alternately with the hands, and the rope grasped firmly between them. To avoid blistering the hands in descending, they must be lowered one after the other.

THE JAVELIN.

This is an excellent gymnastic recreation. You must have a pole shod at one hand with iron. It should be grasped with the whole end, the butt coming between the first finger and thumb. The aim must be taken deliberately, and the javelin properly poised before it is cast. The arm in doing so to be thrown as far back as possible, to deliver the javelin with greater force.

THE LONG CHALK.

Mark a line upon the ground, to which the toes of both feet must be placed, neither of which must move beyond it. Either hand is then thrown forward on the floor, as far, and no farther, as will enable you with a spring to regain your former upright position, not scraping the floor with the hand, nor disturbing the position of your feet. After you have ascertained by practice the distance you can fall and regain your original position, take a piece of chalk, and make a mark as far in front of you as you can with your disengaged hand, without altering the position of the feet, or using both hands in rising.

THE HAND SPRING.

This feat is performed by throwing yourself forward against a wall, resting upon the palm of the hand with the fingers upward, the feet being placed at a distance from the wall, which will enable you to recover an upright position; for according to the distance you stand from the wall, the more or less difficult will the feat be found. This feat should be well practised before commencing the

SPRING FROM THE THUMB,

Which is performed by resting the body upon the thumb, the inside of which is placed against the edge of a table, taking care that it rests against something, or else you may

get a fall by driving the table before you. By continual practice you may extend the distance you stand from the table.

THE STOOPING REACH.

By practising this feat considerable agility may be acquired. A line should be drawn upon the floor against which the other side of the right foot must be placed, and the heel of the left foot placed at a short distance behind the right foot touching the line. The right hand must be passed under the knee of the right leg, and with a piece of chalk mark a line as far in advance of the other line as you can, and then immediately recover your position without moving your feet or touching the ground with your hands. The knee and body may project over the line chalked, but the feet must be kept in their original position. In this feat there is no spring to assist you in rising, as the chalk is held between the fore-finger and thumb.

THE TRIUMPH,

So called from the difficulty of accomplishing this feat without a great deal of practice. The palms of the hands must be placed together behind you, with the thumbs nearest the back, and the fingers downwards; and then keeping the palms as much as possible together, turn the hands, keeping the tops of the fingers close to the back, until they are

placed between the shoulders, with the thumbs outward, the tops of the fingers towards the head, and the palms touching one another.

THE FEAT WITH THE FINGERS

Is done by placing your arms horizontally close to and across your chest; the fore-fingers of each hand pressing one against the other. When in this position, another person may endeavour to separate them, which he will fail to do if they are held properly, as he must use only regular force, and not jerk them suddenly.

THE FEAT WITH THE POKER.

A common fire poker must be held between the fingers and thumb, which by the motion of the fingers and thumb you must endeavour to work upwards, the poker remaining perpendicular the whole time. This is a much more difficult feat than it would appear at first, as it requires not only considerable strength of finger, but also knack, which cannot be acquired without practice, and when first attempted, will be found very difficult.

KNEELING DOWN

Is an exercise of some difficulty, and is done by placing the toes against a line chalked on the floor, and kneeling down and springing up again without making use of the hands, or moving the toes from the chalk line.

TO REMOVE A CHAIR FROM UNDER YOU WITHOUT FALLING.

The body is placed upon three chairs, the centre one of which should be lighter than the others, the head resting upon one, and the heels upon the other. The body must be stiffened, and the chest thrown up, keeping the shoulders down. You then disengage the middle chair, and move it over your body until you deposit it on the opposite side. This is one of the feats which at first is found very difficult, but which by practice may be overcome, provided the chair you have to lift is not too heavy for your strength.

BREAST TO MOUTH.

The distance from the outside of the elbow to the tip of the second finger, is measured on a cane or stick. You must then grasp the stick with the right hand, the middle finger being placed over the mark. The stick must be held horizontally before you, with the elbow close to the side, and you must then endeavour to raise the left end of the stick to your mouth, without changing your position or moving your head.

WALKING ON STILTS

Is a habit acquired in early life by the shepherds of the south of France; for by these additional legs the feet are kept from the burning sand in summer, and from the water

which covers the sandy plains in winter; and by gaining this elevation, they acquire such an increased sphere of vision over the sandy plains, as enables them to see their sheep at a greater distance than they could from the ground. Stilts are made with two poles, and at any distance from their ends, a piece of wood, flat on the upper surface for the foot to rest on, and is fastened by a strap attached to it, and another a little above the knee. Stilts made high enough to be used as supports for the hands are better than those cut off just above the **knee joint**.

CRICKET.

THE laws of Cricket, as played by men in England and the United States, appear to us too complicated for little boys. That kind of cricket which is actually played in this country is a very simple game, and sufficiently amusing without complicated regulations.

The Wicket is a long rod placed on low supports. Two wickets are placed at a distance proportioned to the strength of the juvenile arms and hands that are destined to roll the ball. Sides are chosen, and a toss-up for the first in. The side that is in places two of its number to guard the wickets with their bats, who change positions at each hit, the rest waiting for their turn. When a wicket is knocked down, the player who guarded is out, or if his ball is caught by one of the opposite side before touching the ground, he is out, and another of his side takes his place, till all but one are out, in this manner. Then the opposite side is in; and the side that is out takes its turn, two rolling, and the rest at various posts waiting to catch the ball or go after it when struck, and return it to one of the two rollers.

This is the simple Cricket of the country boys, and a most delightful exercise it affords.

ARCHERY.

ALTHOUGH no longer useful as a military exercise, Archery is still much in vogue, keeping up the associations of a brilliant antiquity. So lately as the year 1753, targets were erected during the Easter and Whitsuntide holidays in Finsbury Fields, when the best shooter was styled "Captain," for the ensuing year, and the second, "Lieutenant." For the purposes of war, the bow has been superseded by fire-arms, as it is by no means so certain of aim, for moisture and the prevalence of wind are almost fatal to the use of this instrument, besides that its range is comparatively limited. In many parts of South America the bow is still used, and is eight feet and a half in length, the arrows being about six feet and a quarter in length. The natives use this apparently unwieldy instrument with great skill.

THE BOW.

The archer must choose a bow adapted to his height and strength, as by selecting one suited to a stronger person, he will find this delightful exercise become a toil, and he will

be prevented hitting the mark. The bow is flat outside, called the back, and the inside part, called the belly, is round. This part is bent inward. If the bow be pulled the reverse way it will break. It is always to be strung with the round part inward, however it may be bent when unstrung.

ARROWS.

Arrows must always be in length and height proportioned to the bow with which they are intended to be used. They vary according to the fancy of the archer, and are used either blunt or sharp; some are made to taper from the pile to the feathers, and some *vice versâ*; and some are made thickest in the centre; but those first mentioned are the most to be preferred. The notches that fit to the string of the bow should be cased with horn, and they must fit with great exactness, not being too tight nor too loose. Three turkey or gray goose feathers are affixed to arrows; one of these, generally of a different colour from the other two, and called the cock feather, must be placed uppermost on the string.

THE STRING.

To prevent the string from being weakened by friction, that part of it which receives the notch of the arrow is whipped with silk; if this should come off, it must be re-

whipped at once, or the string in all probability will break, and frequently the bow at the same time. A string should never be permitted to remain twisted or ravelled; it must be thrown on one side and re-twisted and waxed, before it is used again. In stringing the bow, the string must always be from the centre of the bow proportionate to its length; for instance, a bow five feet long should have the string about five inches from the centre.

THE QUIVER.

The quiver is usually made of wood or leather, sometimes tin, and is seldom worn except in roving.

THE TASSEL.

The tassel is used for cleaning the arrow from dirt, which when it enters the ground may adhere to it; for if it were allowed to remain, it would render the course of the arrow untrue, and also impede its flight. So that it may be always at hand, it is suspended on the left side of the archer.

THE GLOVE.

The glove has three finger stalls, which should not project over the tops, nor cover the first joint. It has also a back thong, and a wrist-strap to fasten it, and is worn on the right hand, and its purpose is to prevent the fingers from being hurt by the string.

THE BRACE.

The brace is to afford protection to the left arm from being injured by the string, for without this, in all probability the archer would be prevented shooting for any length of time. It is made of stout leather, having a very smooth surface, which should be kept continually greased, that the string may meet with no impediment in gliding over it. It frequently happens that the archer's arm is considerably and dangerously bruised by the bow string, by not paying proper and careful attention to the above rule.

THE BELT, POUCH, AND GREASE-BOX.

The belt buckles round the waist, the pouch being suspended on the right side, and the grease-box from the middle. The grease-box contains a composition for greasing the finger of the shooting gloves, and the brace when occasion may require it. The pouch is intended to hold the arrows required for immediate use in target shooting.

THE ASCHAM.

The Ascham is a case, containing compartments and drawers for the reception of all the necessary accoutrements of the archer.

BUTTS.

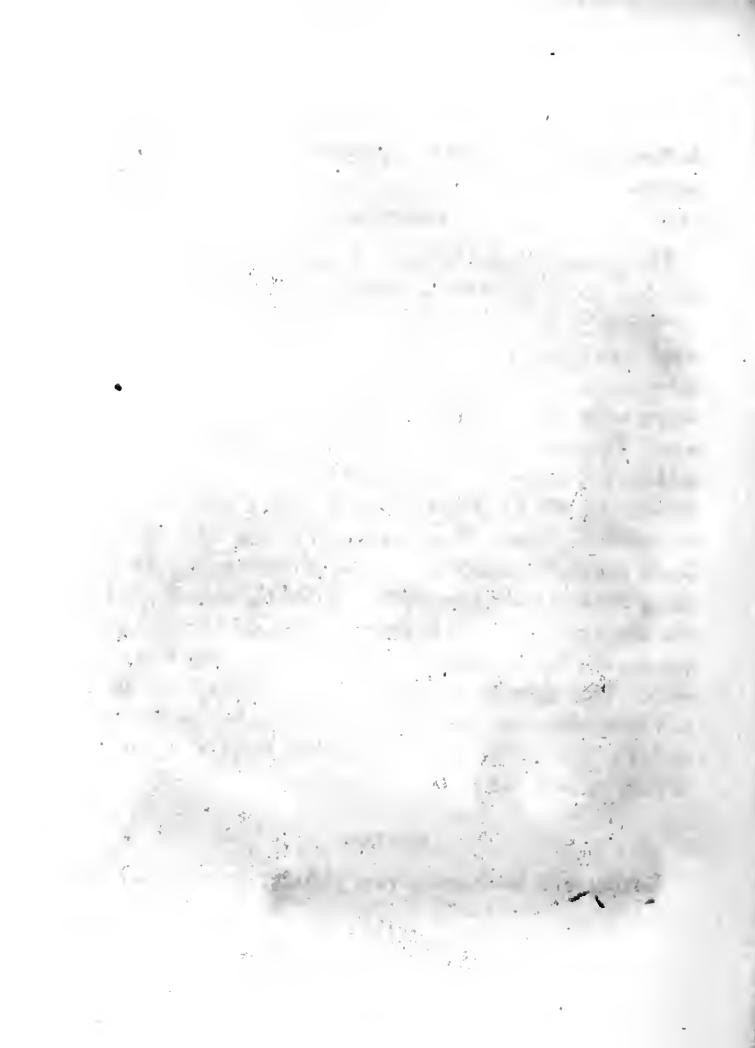
Butts are artificial mounds of turf, built according to the fancy of the archer. They are generally made about seven

feet high, eight feet wide, and three feet thick. In the centre of the butt a circular piece of card-board is placed for a mark, varying in diameter according to the distance the archer shoots; for sixty yards, it should be six inches in diameter, and for eighty yards, eight inches; and so on in proportion. He who places the most arrows in the card-board is the winner; and those shot outside the mark are not counted.

TARGETS.

Two targets are invariably placed opposite each other, in order to avoid a waste of time in going to fetch the arrows, and returning to a particular spot to shoot from. Targets are made of various dimensions, depending upon distance. They are usually four feet and a half in diameter for 100 yards, and so on in proportion to a less distance. The shot in the gold or centre wins. Each circle (gold, red inner, white and black) has a proportionate value, viz., 10, 8, 6, 4, and the outer white, 1. Some targets are made with a facing of canvas sewn on straw used for the purpose; but they are generally fixed, being too heavy for the archer to carry about: others are made of mill-board for roving, being portable but not so durable. The arrow must be extracted from the ground in the same direction as it entered, and held as near the pile as possible, for by not properly attending





to these instructions you will probably break a great many arrows.

POSITION.

The position should be erect, firm, and partly side-ways, the face turned towards the mark, but no part of the front of the body; the heels must be a few inches apart, and the head bent forward. The bow is held in the left hand, in a perpendicular position, with the wrist bent inwards, the arrow to be brought towards the right ear, not towards the eye. The arrow must be drawn from the pouch by the middle, and carried over the left side of the bow, under the string, and the notch placed in the string with the dark feather uppermost. While lifting the bow with the left hand, the right should be engaged in drawing the string, using the first two fingers only, and not the thumb. Take the aim when the arrow is three parts drawn; and when it reaches the head, it should be let fly, or else the bow may snap. Bad attitudes in archery are extremely inelegant, and even ridiculous, and also will be found to impede the archer's success; therefore, your first study must be to acquire an easy and proper position.

ROVING.

Roving will be found a very pleasant exercise, and by

some is preferred to target-shooting. The mark should be some conspicuous object, such as a bush or tree. If an arrow is within two bows' length of the mark, whatever it may be, then it counts one, seven or ten being the game. The one shooting nearest, has the privilege of fixing the next mark. Blunt-headed arrows are the best for this style of shooting, as it will be found difficult to extract the sharp-headed ones, if firmly driven into a tree, without breaking them or cutting the wood away around the arrows. They are not restricted to space, but may rove from field to field, taking care to see that there is no one near the mark they shoot at, for fear of some accident, particularly when using sharp-headed arrows.

DISTANCE, OR FLIGHT SHOOTING.

Flight shooting does not require any particular aim, and therefore does not improve a young archer wishing to excel as a marksman. It consists merely in shooting to as great a distance as possible, and of course the one shooting farthest scores one, seven or ten being the game, as agreed upon. This kind of shooting has a very injurious effect upon the bow, rendering it more liable to be broken than at any other kind of shooting with the long bow.

CLOUT SHOOTING.

When butts or targets cannot be set up near home, clout shooting may be practised: The clout is sometimes made

of paste-board, and sometimes of white cloth fastened upon a stick. All arrows that fall within two bows' length of the mark, score one, and seven or ten is the game.

STRINGING THE BOW.

This is a very difficult operation, and requires a good deal of practice to perform it well. In order to make the following directions more simple, it may be well to state, that the upper end of the bow is the one which has the long bone, and the other with the short bone is called the lower end, and the middle of the bow is generally called the handle.

Turn the flat side of the bow towards your body, and take the upper end of it in your left hand, placing the other end on the ground, against the inside of the right foot. Having put the eye of the bowstring above your left hand, catch the bow by the handle and pull it up with considerable force, at the same time move the left hand upwards, till the eye of the string is placed completely into the nock. For the sake of enabling you with greater ease to move up the eye of the bowstring, you should press the wrist of the left hand firmly against the bow, as that will allow you to work the fingers gradually upwards. You will easily observe the advantages of this; for, when the string tightens, as the eye approaches the nock, you will find it necessary to use every stratagem in addition to your whole strength.

In unstringing the bow, you place the same end on the ground as you did when stringing it: but as you now want to undo what you did before, you must reverse the position of the bow by turning the string upwards: you then slacken the string, by pressing the hand against the bow till you are enabled to lift the eye out of the nock, which you can easily accomplish with the thumb.

ANGLING.

THERE appears to be some enduring charm connected with this delightful summer sport, for we find, that many pursue it with as much enthusiasm in a "good old age," as ever they did in their "boyish days." This amusement is in fact such a universal favourite, that there is no particular age or class that can be said to follow it, as is the case with many other sports; for it is enjoyed equally by the old and the young, by the professional man and the man of business; by the military man and by the statesman; and each, as he has the time and opportunity, studies it with more careful attention. And yet we cannot help wondering why angling should be so eagerly pursued by those of all ages and professions, when we remember that it demands a greater amount of patience and perseverance than is required in the pursuit of any other sport. We have heard many reasons given for this; but as it would occupy too much space to enumerate them all here, we shall give only the general conclusion at which we ourselves have arrived, viz., there is so much variety connected with it, from first to last, that many different dispositions find something in it to attract them. Some will

take as much delight in arranging the flies in their pocket-book, as others do when enjoying the sport on the banks of a river; while others find their pleasure in adjusting the hooks on the line, and otherwise preparing the rod. Our young friends will find full directions given in the following pages:—

RODS.

Your first care will be to provide yourself with good rods, lines, floats, and hooks, as almost every fishing station requires something different. A rod of bamboo (with three or four tops of different lengths) about eight or ten feet in length will be found the most serviceable, and it is necessary that it should be fine and taper, with rings for a running line. This description of rod is the best you can get for punt-fishing, care being taken to choose it light and elastic. Hickory rods may be procured very cheap, and are quite good enough for "little boys." Fly rods are much lighter and more elastic, and should spring well from the butt-end to the top.

The rod must be kept where it will not get damp, as that will rot it; nor must it be kept in too dry a place, for that will crack it. In putting your rod together in warm weather, do not wet the joints too much, or else you will find it difficult to separate them, as they will stick if you wait till they dry; and in using force to get them asunder you may strain your rod.

LINES.

The best lines are those commonly called "gut" and "hair;" the latter for fine clear water: they should be chosen round and even: other lines are made of plaited silk. Always purchase them at a shop, until you have gained sufficient experience to make them yourself. This will also apply to

HOOKS.

In choosing them, see that the barb is of a good length, the points sharp, and that the gut or hair is round and even. They are numbered for convenience, to distinguish them or the fish they are intended to take.

FLOATS.

Cork or reed are the best for a running stream, duck quills, or porcupine, for pond fishing. Small shot are the best to poise the float, as it is better to have a greater number of shot in preference to a few large ones.

BAITS.

The lob-worm is a good bait for salmon, trout, perch, chub, and eels; and is to be found with the dew-worm in loamy soils, or fallow fields newly ploughed. Gilt tails, or brandlings, and red worms are to be found in old dung-hills, hot-beds, &c., and are good bait for tench, perch, bream, and gudgeon, when well scoured, which is done by placing

them in moss for a few hours. The oak-worm, cabbage-worm, canker-worm, and colewort-worm are to be found on the leaves of trees, plants, &c., and are good bait for chub, trout, roach, dace, or tench. Maggots or gentles are readily taken by all kinds of fish; they must be kept in wheat bran to scour them. Minnows, dace, bleak, perch, &c., are good bait for pike. Greaves are a good bait for barbel, roach, chub, and dace. The wasp grub, and the grasshopper, are eagerly taken by almost any fish in clear streams about mid-water.

ARTICLES REQUISITE FOR ANGLERS.

Hooks of various sizes; floats; lines; caps, for floats; split shot; gentle box; worm bags; a plummet, for taking the depth; landing net; clearing ring; disgorgers; winches for running line; pan, for live bait, &c. The lines should be four yards long.

SALT WATER ANGLING.

At the mouths of rivers flowing up from the sea, piers, &c., whiting, plaice, turbot, &c., may be taken. Bait with shrimps, gentles, or red worms at the mouth of rivers; and when angling from a boat or pier, &c., a raw crab, a piece of whiting, or two or three red worms. The tackle necessary will be a strong rod, good line leaded, large hook, and cork float.

OBSERVATIONS.

For bottom fishing care should be taken properly to plumb the depth without disturbing the water. When the water is not deep, keep as far from it as you can. The use of fine tackle will enable you the sooner to become proficient. Do not lose your patience if you do not at once meet with the success you anticipated, or if your tackle breaks, but endeavour to repair it. In close weather, or with a gentle rain, fish will bite best; also with a gentle wind from the south-west. Fish will seldom bite with a north wind, except in sheltered places. Keep the sun in your face, if possible, as your shadow will frighten the fish. If you should hook a good fish, keep your rod bent, or he will break your line, or his hold. Never attempt to land a large fish by laying hold of the line, but always have a landing net prepared. In the morning early, or after five in the evening, are the best parts of the day for angling. Always keep your tackle neat and clean, and they will be ready when required. Take care to be well clad, and wear thick-soled shoes, or you may take cold. If you should fish in company with any one, let there be a distance of forty yards between you. Fish as close to the bank as you can. Patience in this, as in every pursuit of life, is particularly essential, for with perseverance, success must eventually attend you.

SWIMMING.

THE many advantages of swimming are too generally appreciated, to require that we should enter here into any lengthened recommendation of the art. It may be sufficient to draw attention to the fact, that those who cannot swim, invariably express great regret for not having learned: while those who can, always speak of it with evident feelings of pleasure and satisfaction. These facts are sufficient proof of the high and universal estimation in which it is held, and we would earnestly advise our young friends, not to lose any opportunity of acquiring an art, the practice of which is so conducive to the health and vigour of the body, and is frequently the means of saving not only our own lives, but the lives of others.

TO BEGIN TO LEARN TO SWIM.

To put yourself in a right posture for swimming, lie down gently on your face, keep your head and neck upright, your breast advancing forward, and your back bending; withdraw your legs from the bottom, and immediately stretch

them out in imitation of a frog, strike out your arms forward, and spread them open, then draw them in again towards your breast; strike forward, make use first of your feet, then of your hands, as many strokes as you can, and you will find this way easy and pleasant. I have been used to persuade those whom I have taught to swim, not at all to fear lying along the water when they know the bottom. It will sometimes happen that you will drink down some water, but that ought not to discourage you; nor need you fancy to yourself that you are not as capable of learning and swimming as well as others, for the same thing happens almost to all beginners; besides, it is common, at first learning, in lying along the water to sink down, and be almost stifled in holding one's breath. It is usual at first, for these reasons, to administer sundry helps: as, to hold up their chins, or give them a bundle of corks, or bladders, which are the best helps for young beginners.

Take special care that the water is not higher than your breast, nor shallower than up to near your waist.

TO RETURN BACK AGAIN IN SWIMMING.

To turn back, you must turn the palm of your right hand outward from you, and strike out the arm the same way, and do exactly the contrary with your left hand and arm, striking that inwards the contrary way, embracing, as it were, the water on that side.

TO FLOAT OR SWIM WITH THE FACE TOWARD THE SKY.

When you are upright in the water, lie down on your back very gently, elevate your breast above the surface of the water, and in the mean while keep your body always extended in the same right-line, your hands lying on your stomach, striking out and drawing in your legs successively, and govern yourself accordingly. The best way to begin will be by the assistance of some one's hand, or a bundle of corks, or bladders; you have nothing to do but to lie down gently, and take especial care that you do not, through fear, put down one of your legs to feel for the bottom, for you need not fear sinking, but such a motion of the foot is the way to make you do so.

HOW TO TURN IN THE WATER.

To turn easily you must incline your head and body to the side you would turn to, and at the same time move and turn your legs after the same manner, as you would do to turn the same way on land; this hinders and stops the motion of your body forwards all at once.

If you will turn to the left, you must turn the thumb of your right hand towards the bottom, and with the palm open, but somewhat bent, drive off the water forward from that side, and at the same time, with the left hand open, and fingers close, drive the water on that side backwards,

and at once turn your body and face to the left. If you would turn to the right, you must do just the same thing contrariwise.

THE TURN CALLED RINGING THE BELLS.

If you swim on your face, you must at once draw in your feet; and strike them forwards, as you did before backwards, at the same time striking out your hands backwards, and putting your body in an upright posture.

If you swim on your back, you must at once draw in your legs towards your back, and striking them down towards the bottom, cast your body forward till you are turned on the face: but you must take heed that you have water sufficient, and that there are no weeds at the bottom, which have sometimes proved fatal to the best swimmers.

ANOTHER WAY OF TURNING.

If you swim on your face, and would turn to the left, you must extend your right hand and arm as far out before you as you can, and turn your face, breast, and whole body to the left, lifting up your right hand towards the top of the water, and you will find yourself on your back; and from your back you may turn again on your face, and so on as often as you please. That these changes of posture may be performed with speed and agility, you must take care to keep your legs close together, and your arms stretched out before your breast, but not separated from one another.

TO SWIM BACKWARDS.

When lying on the back you push yourself onward with your feet and legs ; but to do the contrary, and advance forward, you must, lying always on the back, keep the body extended at full length in a straight line, the breast inflated, so that that part of the back which is between the shoulders must be concave (or hollow,) and sunk down in the water, the hands on the stomach. Being, I say, in this posture, you must lift up your legs one after another, and draw them back with all the force you can towards your back, letting them fall into the water, for thus you will return to the place whence you came.

TO TURN ONE'S SELF LYING ALONG.

It seems at first sight, that to turn one's self, and turn one's self lying along, were the same thing ; but to turn lying along, you must keep yourself in a posture extended and lying on the back, the top of your arms close to your sides, turning the lowest joint of your right hand outwards ; the legs at a distance from one another, at least a foot, or thereabouts. The soles of your feet turned towards the bottom of the water. In this posture you may turn as you please towards the right or left side. This may be serviceable in several circumstances ; for it often happens, that a person swimming on his back, may be forced against a bank, or among weeds ; wherefore a ready way of turning

is very proper to avoid those sort of dangers. But, notwithstanding these methods of escape, it is not safe to venture among dangers of this kind, especially weeds; for some time or other one may be caught. There is another way of disengaging one's self from weeds, which I will show under the following head.

TO MAKE A CIRCLE.

To perform this, the body lying on the back, if you would begin to turn from the right to the left, you must first sink your left side somewhat more towards the bottom than the other, and lift out of the water your legs successively, first the left, then the right, and at each of these motions advance your legs onwards about a foot each, towards the left side, your head remaining still in the same place; the froth on the surface of the water will note the parts of the circle you have described. In the practice of it you must take care not to elevate your feet too high in the air, for that would sink down the head in the water; nor to strike the water too hard with the feet, as it causes a disagreeable noise.

TO TURN, BEING IN AN UPRIGHT POSTURE.

Being in the water in an upright posture, you may turn and view everything successively round about you. You may see that I am indeed upright, but to make you understand those motions of my feet which you cannot see;—

suppose I wish to turn to the right, in the first place I embrace the water with the sole of my right foot, and afterwards with that of my left; and in the meanwhile I incline my body towards the left; I also draw, as much as I can, the water towards me with my hands, and afterwards drive it off again; I draw it first with my left hand, and then with my right, and having so drawn it towards me, drive it off again.

TO ADVANCE, SWIMMING WITH THE HANDS JOINED TOGETHER.

This is one of the first and most simple ways of swimming, and is also very graceful. In the practice of it you hold your hands joined together, drawing them in towards the breast, and successively striking them out again. The two hands remain all the while joined, insomuch that the thumbs and fingers being turned towards the surface of the water, seem to be out of it. Besides the gracefulness of this way of swimming, it is moreover serviceable for traversing or swimming across a heap of weeds, &c., for the hands being thus joined, as it were, in a point, open a passage for you through weeds or reeds, if they chance to oppose you, especially if you take care not to strike your hands out too far.

TO SWIM ON YOUR SIDE.

Suppose you swim on your back or face, lower or sink

your left side, and at the same time elevate your right one. In swimming, when you are thus laid, move your left hand as often as you see convenient, without either separating it far from your body, or sinking it, perpetually striking it out, and retracting it, as in a right-line, on the surface of the water.

TO SWIM ON THE FACE, HOLDING BOTH HANDS STILL.

This is easily performed in the following manner. You must keep your breast advancing forward, your neck upright on the water, both your hands fast behind your head, or on your back, while in the meantime your legs and thighs push you forward by the same motions you make when you swim on your face.

TO CARRY THE LEFT LEG IN THE RIGHT HAND.

This is performed when, in swimming on the face, you lift up your leg, and moving it towards the back, take hold of it with the hand of the opposite side, continuing in the meanwhile to swim with the leg and other hand which are at liberty.

TO SWIM LIKE A DOG.

To swim like a dog, you must lift up and depress one hand successively after another, and do the same also with your feet, only with this difference, that with your hands you must draw the water towards you, and with your feet

drive it from you; you must begin with the right hand and right foot, and afterwards with the left hand and foot, and so successively.

TO BEAT THE WATER.

You strike the water with your right and left legs; the manner of it is very pleasant; when swimming on the back, at each extension of the legs, lifting them up out of the water one after another, you strike the water so that it rebounds up into the air. Those who are most expert at this, bring their chins towards their breast at each extension. There are some who, not satisfied with going so far only, to perform the business more gracefully, lift up their legs much higher than others, strike the water at each extension, sometimes with the right leg, sometimes with the left, at the same time turn the whole body. This will be found most agreeable. To perform this, you must keep your body extended on your back, expand or inflate your breast, and keep it almost out of the water, the palms of both your hands extended and turned towards the bottom, for it is the office of the hands to keep up the body while you strike and open your legs; but if, at the same time, you wish to beat water, and turn yourself, in that case, supposing your right leg is up out of the water, you must strike the water with that, and at the same time lift up the left leg, and by the same action turn your whole body.

TO KEEP ONE FOOT AT LIBERTY.

These easy ways of swimming seem more for diversion than advantage; yet, notwithstanding, there is not one of them but what may be serviceable in some of those numerous rencounters which happen to swimmers; as, for example, this may serve to disengage one's feet from weeds. He turns himself sometimes to the right, sometimes to the left, having always one leg up out of the water, looking about him, bringing in his chin always towards his breast. It is more difficult than it seems to be at first sight; for if the breast is not inflated, the palms of the hands extended, and turned downwards towards the bottom, and if the other leg is not employed in the water, your head immediately sinks down. The address or management of it is difficult; but the recompense, when learned, is satisfactory and very useful.

TO SHOW BOTH FEET OUT OF THE WATER.

One may swim holding both feet out of the water, and this is very easy; you may also not only remain so in one place, but also make advances forward. You must place yourself on your back, and bend the small of it contrariwise to what is practised in other ways of swimming; your hands must be on your stomach, the palms of them open, moving them to and fro, like oars, which must sustain your body while your feet are down. This way of swimming

will serve to show you whether your feet are clean or not, after having taken them from the bottom.

SUSPENSION BY THE CHIN.

You cannot easily imagine how this manner of swimming is performed. To make you comprehend it you are to remember, that when you swim on your back you lie still, your legs being extended; when you find yourself in that posture, you must let your legs go down or sink; and when they come to be perpendicular to the bottom, you must take them up again, bending your knees, and inflating your breast: and as to the arms and hands, whereof the back parts lie flat on the water by the shoulders, you must sometimes extend them on one side, sometimes on the other, sometimes shut them, turning the palms towards the bottom, the fingers close to one another, holding your chin as upright as possible. This way, which seems so surprising, is sometimes very useful: suppose, at any time, the ice should happen to break under your feet, this way will be of vast advantage to secure yourself from the danger.

TO TREAD WATER.

By this way you remain upright in the water without making any motion with your hands, only you move the water round with your legs from you, the soles of your feet being perpendicular to the bottom. This way of swimming

is very advantageous, for it gives us the free use of the hands.

CHANGING HAND AND FOOT.

With the right hand you hold the left foot, and contrariwise; but you must change these holds by a speedy letting or striking down of the foot held up. This may be useful for taking off weeds from the legs.

TO CREEP.

The action of swimming in man is very like the motion of creeping in reptiles; as, suppose a snake, for example, which, resting or stopping first, with his fore parts, draws the rest of the body forwards; and it is a way very serviceable to get clear of weeds. To practise it, being on the face, you cast your hands forward, and your feet softly backward, but close together, and thus you advance, extending your arms and hands as far from your breast as possible, your fingers close, and the palms of your hands a little bent, turned towards the bottom; for being in this posture, if you draw towards your breast with your hands and arms the water that is before you, by that you give time to the rest of your body to advance farther, and to disengage yourself from the weeds, if you are entangled in them, which **must** not be done with too much haste or force.

TO SIT IN THE WATER.

You must take both your legs in your hands, draw in your breath, and so keep your breast inflated; your head upright, and lifting up successively your arms and legs, by that motion sustain yourself.

TO SWIM HOLDING UP YOUR HANDS.

While you swim on your back, it is easy to put your hands to what use you please; but it is difficult to hold them upright, and swim at the same time too. It would appear at first sight as if this were the most easy method we have yet taught. You must take care lest, while you lift up your arms, the thorax or breast be not contracted, for if so you sink. The whole art in this way of swimming, consists in heaving up the breast as high, and keeping it inflated as much as possible, while your arms are held

THE LEAP OF THE GOAT.

It is called so by reason you imitate the leaping of goats in the motion of the feet. To perform it you must have both courage and strength. You must keep your breast inflated, and strike with both your hands the water on each side, by thick short strokes, three or four times, but more forcibly the last time than the others: while you are doing thus, you must lift your feet up quite out of the water, and rub them one against the other, as you see commonly done

in the cutting of capers. This is one of the most difficult, the most ingenious pieces of art belonging to swimming, and when you have arrived at it, you may say you have mastered one of the most difficult points in the whole art; for it is as difficult as to swim under water, to which there is required a great deal of artificial management; which now I come to show. The first step is to learn to dive.

TO DIVE.

If men sink to the bottom of the water, it is their own fault; there is not only occasion for force, but also art to do it safely. The first way of doing it is to begin with your feet touching the bottom; then afterwards rise up, your head bowed down, so that your chin must touch your breast; the crown of your head being turned towards the bottom, holding the back of your hands close together, right before your head, and sinking or striking them down first with all the swiftness and exactness you can: thus you may dive to the bottom.

THE PERPENDICULAR DESCENT.

This is for those who leap from any height into the water, and is performed by taking a leap a little forward, and sometimes upward, that your head may be perpendicularly downward. When you have very deep water, it cannot be performed after any more ready method, because of the

difficulty of long holding one's breath. However, it is seldom put in practice by reason of the dangers which attend it.

TO SWIM UNDER WATER.

You first of all dive down ; the two hands must be turned back to back, and close to one another ; after which you must extend them with all the swiftness you can, your thumbs turned upwards, and your fore-fingers towards the bottom ; you may have occasion to swim thus, when you are to seek for anything at the bottom of the water ; also to help one in danger of being drowned. But in this last case, you must take heed not to come too near to any one in that danger ; for if such a one takes hold of you, you are certainly lost.

To proceed, in that case, safely, you must keep ten or twelve feet off : your best way will be not to lay hold of him till he is quite sunk down, and has lost the use of his sight ; and if you have observed the place where he is, you may endeavour to take hold of him by the hair, and so draw him on your back, always taking care that he does not lay hold of you, or otherwise hamper you ; you may thus draw him to some shallow place.

TO COME TO THE TOP OF THE WATER, AFTER DIVING.

After you are at the bottom, you may return with the same facility; which is performed much after the same way as we have taught before, to turn one's self in the water; the person who swims with one of his hands extended must push from him, with his palm, the water which is before him, and with the cavity of the other palm drawing towards him the water which is behind him; when your hand is extended as far as it can be, the fingers of the hand so extended, and the palm of that turned outwards, ought to shut or clench; the perfection of this way you will see as follows:—

IN SWIMMING UNDER WATER, TO MAKE A CIRCLE.

When swimmers go to search for anything in the water, they swim round about the place where the thing was cast in, if they do not find it immediately; by this sort of address they can take up the least thing that is at the bottom. The manner of making this compass or circle is thus: if you would begin the circle from the right hand, and end it at the left, you must grasp or embrace the water with both your hands from the right to the left, and exactly contrary if you would turn the other way; but when you have dived perpendicularly down, and cannot see what you want to find, you will be obliged to take such a compass, but do not go so far as to lose the light; for when that once begins to

fail you, it is a sign you are either too deep, or under boat, or shore, or something else that intercepts the light. You must always take heed of venturing into such places; and if you should find yourself so engaged, call to mind whereabouts, or which way you came thither, and turn back the same way, looking upwards for the light; for you may see it a great way off; above all take heed you do not breathe under the water. In case you are afraid that an enemy should lay wait for you when you come up again, you must have recourse to the agility of the dolphin.

SKATING.

IF we may judge of the popularity of the different sports and amusements by the amount of danger which we see incurred in their pursuit, we should say that none stands so high in public favour as Skating. Like most of our other amusements, it is difficult to ascertain much about its origin, but we have no doubt that it was at first practised more from necessity than as a recreation. Many feats and graceful evolutions may be performed on the ice by those who have had much practice in Skating.

Skating is the art of balancing the body, while, by the impulse of each foot alternately, it moves rapidly upon the ice.

CONSTRUCTION OF THE SKATE.

The wood of the skate should be slightly hollowed, so as to adapt it to the ball of the foot; and as the heel of the boot must be thick enough to admit the peg, it may be well to lower the wood of the skate corresponding to the heel, so as to permit the foot to regain that degree of horizontal

position which it would otherwise lose by the height of the heel: for the more of the foot that is in contact with the skate, the more firmly will these be attached.

As the tread of the skate should correspond as nearly as possible with that of the foot, the wood of the skate should be of the same length as the boot or shoe.

The irons should be of good steel, well secured in the wood; and should pass beyond the screw at the heel nearly as far as the wood itself; but the bows of the iron should not project much beyond the wood.

If the skate project much beyond the wood, the whole foot, and more especially its hind part, must be raised considerably from the ice when the front or bow of the skate is brought to bear upon it; and, as the skater depends upon this part for the power of his stroke, it is evident that that must be greatly diminished by the general distance of the foot from the ice.

In short, if the skate be too long, the stroke will be feeble, and the back of the leg painfully cramped; if it be too short, the footing will be proportionably unsteady and tottering.

As the position of the person in the act of skating is never vertical, and is sometimes very much inclined, and as considerable exertion of the muscles of the leg is requisite to keep the ankle stiff, this ought to be relieved by the lowness of the skates.

Seeing, then, that the closer the foot is to the ice the less is the strain on the ankle, it is clear that the foot ought to be brought as near to the ice as possible, without danger of bringing the sole of the shoe in contact with it, while traversing on the edge of the skate. The best height is about three quarters of an inch.

The iron should be about a quarter of an inch thick.

The more simple the fastenings of the skate are, the better. The two straps, namely, the cross strap over the toe, and the heel strap, cannot be improved, unless, perhaps, by passing one strap through the three bores, and so making it serve for both.

Before going on the ice, the young skater must learn to tie on the skates, and may also learn to walk with them easily in a room, balancing alternately on each foot.

DRESS OF THE SKATER.

A skater's dress should be as close and unencumbered as possible. Large skirts get entangled with his own limbs, or those of the persons who pass near him : and all fulness of dress is exposed to the wind.

Loose trousers, frocks, and more especially great coats, must be avoided ; and, indeed, by wearing additional under-clothing, they can always be dispensed with.

As the exercise of skating produces perspiration, flannel

next the chest, shoulders, and loins, is necessary to avoid the evils produced by sudden chills in cold weather.

The best dress for this exercise is what is called a dress-coat buttoned, tight pantaloons, and laced boots (having the heel no higher than is necessary for the peg), which hold the foot tightly and steadily in its place, as well as give the best support to the ankle; for it is of no use to draw the straps of the skate tight if the boot or shoe be loose.

PRELIMINARY AND GENERAL DIRECTIONS.

Either very rough or very smooth ice should be avoided.

The person who for the first time ventures on the ice, must not trust to a stick. He may make a friend's hand his support if he requires one; but that should be soon relinquished, in order to balance himself. He will probably scramble about for half an hour or so, till he begins to find out where the edge of his skate is.

The following directions will be useful:

The beginner must be fearless, but not violent: not even in a hurry. He must not let his feet get far apart, and must keep his heels still nearer together. He must keep the ankle of the foot on the ice quite firm; not attempting to gain the edge of the skate by bending it, because the right mode of getting to either edge is by the inclination of the whole body in the direction required; and this inclination should be made fearlessly and decisively. He must

keep the leg which is on the ice perfectly straight; for though the knee must be somewhat bent at the time of striking, it must be straightened as quickly as possible without any jerk. The leg which is off the ice should also be kept straight, though not stiff, having an easy though slight play, the toe pointing downwards, and the heel being kept within from six to twelve inches of the other. He must not look down at the ice, nor at the feet, to see how they perform. He may at first incline his body a little forward, for safety, but must hold his head up, and see where he goes. He must keep his person erect, and his face rather elevated than otherwise, but not affectedly. When once off, he must bring both feet up together, and strike again, as soon as he finds himself steady enough. While skating, he must rarely allow both feet to be on the ice together. The position of the arms should be easy and varied; one being always more raised than the other, this elevation being alternate, and the change corresponding with that of the legs: that is, the right arm being raised as the right leg is put down, and *vice versâ*, so that the arm and leg of the same side may not be raised together. The face must be always turned in the direction of the line intended to be described. Hence, in backward skating, the head will be inclined much over the shoulder; in forward skating, but slightly. All sudden and violent action must be avoided. Stopping may be caused by slightly

bending the knees, drawing the feet together, inclining the body forward, and pressing on the heels. It may also be caused by turning short to the right or left, the foot on the side to which we turn being rather more advanced, and supporting part of the weight.

THE ORDINARY RUN, OR INSIDE EDGE FORWARD.

The first attempt of the beginner is to walk, and this walk shortly becomes a sliding gait. This is done entirely on the inside edge of the skate. The first impulse is to be gained by pressing the inside edge of one skate against the ice, and advancing with the opposite foot. To effect this the beginner must bring the feet nearly together, turn the left somewhat out, and place the right a little in advance, and at right angles with it: lean forward with the right shoulder, and at the same time move the right foot onwards, and press sharply, or strike the ice, with the inside edge of the left skate, care being taken instantly to throw his weight on the right foot.

While thus in motion the skater must bring up the left foot nearly to a level with the other, and may for the present proceed a short way on both feet. He must next place the left foot in advance in its turn, bring the left shoulder forward, inclining to that side, strike from the inside edge of the right skate, and proceed as before. Finally, this motion has only to be repeated on each foot alternately, gradually

THE FORWARD ROLL, OR OUTSIDE EDGE. 111

keeping the foot from which he struck longer off the ice, till he has gained sufficient command of himself to keep it off altogether, and is able to strike directly from one to the other, without at any time having them both on the ice together.

Having practised this till he has gained some degree of firmness and power, and a command of his balance, he may proceed to

THE FORWARD ROLL, OR OUTSIDE EDGE.

This is commonly reckoned the first step to figure skating, as, when it is once effected, the rest follows with ease. The impulse for the forward roll is gained in the same manner as for the ordinary run; but, to get on the outside edge of the right foot, the moment that foot is in motion, the skater must advance the left shoulder, throw the right arm back, look over the right shoulder, and incline the whole person boldly and decisively to that side, keeping the left foot suspended behind, with its toe closely pointed to the heel of the right. As he proceeds he must bring the left foot past the inside of the right, with a slight jerk, which produces an opposing balance of the body; the right foot must quickly press, first on the outside of the heel, then on the inside of its toe; the left foot must be placed down before it, before it is removed more than about eight or ten inches from the other foot; and, by striking outside to the left, and giving

at the same moment a strong push with the inside of the right toe, the skater passes from right to left, inclining to the left side, in the same manner as he did to the right. The skater then continues to change from left to right, and from right to left in the same manner. He must not at first remain long upon one leg, nor scruple occasionally to put the other down to assist. And throughout he must keep himself erect, leaning most on the heel.

The Dutch travelling roll is done on the outside edge forward, diverging from the straight line no more than is requisite to keep the skate on its edge.

The cross roll or figure 8 is also done on the outside edge forward. This is only the completion of the circle on the outside edge; and it is performed by crossing the legs, and striking from the outside instead of the inside edge. In order to do this, as the skater draws to the close of the stroke on his right leg, he must throw the left quite across it, which will cause him to press hard on the outside of the right skate, from which he must immediately strike, at the same time throwing back the left arm, and looking over the left shoulder, to bring him well upon the outside of that skate. By completing the circle in this manner on each leg the 8 is formed, each circle being small, complete, and well-formed before the foot is changed.

The Mercury Figure is merely the outside and inside forward succeeding each other on the same leg alternately,

by which a serpentine line is described. This is skated with the force and rapidity gained by a run. When the run is complete, and the skater on the outside edge, his person becomes quiescent, in the attitude of Mercury, having the right arm advanced and much raised, the face turned over the right shoulder, and the left foot off the ice, a short distance behind the other, turned out and pointed.

FIGURE OF THREE, OR INSIDE EDGE BACKWARD.

This figure is formed by turning from the outside edge forward to the inside edge backward on the same foot. The head of the 3 is formed like the half circle, on the heel of the outside edge; but when the half circle is complete, the skater leans suddenly forward, and rests on the same toe inside, and a backward motion, making the tail of the 3, is the consequence. At first the skater should not throw himself quite so hard as hitherto on the outside forward, in order that he may be able the more easily to change to the inside back. He may also be for some time contented with much less than a semicircle before he turns. Having done this, and brought the left leg nearly up to the other, the skater must not pass it on in advance, as he would to complete a circle, but must throw it gently off sideways, at the same moment turning the face from the right to the left shoulder, and giving the whole person a slight inclination to the left side. These actions throw the skater upon

the inside of his skate ; but as the first impulse should still retain most of its force, he continues to move on the inside back, in a direction so little different, that his first impulse loses little by the change. If unable to change the edge by this method, the skater may assist himself by slightly and gently swinging the arm and leg outward, so as to incline the person to a rotary motion. This swing, however, must be corrected as soon as the object is attained ; and it must generally be observed, that the change from edge to edge is to be effected merely by the inclination of the body, not by swinging. When the skater is able to join the ends of the 3, so as to form one side of a circle, then by striking off in the same manner, and completing another 3, with the left leg, the combination of the two 3's will form an 8. In the first attempts the 3 should not be made above two feet long, which the skater will acquire the power of doing almost imperceptibly. He may then gradually extend the size as he advances in the art. Though backward skating is spoken of, the term refers to the skate only, which in such cases moves heel foremost, but the person of the skater moves sideways, the face being always turned in the direction in which he is proceeding.

OUTSIDE EDGE BACKWARDS.

Here the skater, having completed the 3, and being carried on by the first impulse, still continues his progress in

the same direction, but on the other foot, putting it down on its outside edge, and continuing to go backwards slowly. To accomplish this, the skater, after making the 3, and placing the outside edge of his left foot on the ice, should at once turn his face over the right shoulder, raise his right foot from the ice, and throw back his right arm and shoulder. If, for a while, the skater is unable readily to raise that foot which has made the 3, and leave himself on the outside of the other skate, he may keep both down for some distance, putting himself, however, in attitude of being on the outside only of one skate, and gradually lifting the other off the ice, as he acquires ability. When finishing any figure, this use of both feet back has great convenience and beauty. Before venturing on the outside backward, the skater ought to take care that the ice is clear of stones, reeds, &c., and must also be certain of the good quality of his irons. When going with great force backward, the course may be deflected so as to stop by degrees; and, when moving slowly, the suspended foot may be put down in a cross direction to the path.

Such, then, are the four movements of which alone the skate is capable: namely, the inside edge forward; the outside forward; the inside back; and the outside back; in which has been seen how the impulse for the first two is gained, and how the third flows from the second, and the fourth from the third. By the combination of these ele-

ments of skating, and the variations with which they succeed each other, are formed all the evolutions in this art.

The Double Three is that combination in which the skates are brought from the inside back of the first three to the outside forward of the second. Here the skater, after having completed one 3, and being on the inside back, must bring the whole of the left side forward, particularly the leg, till it is thrown almost across the right, on which he is skating. This action brings him once more to the outside forward, from which he again turns to the inside back. While he is still in motion on the second inside back of the right leg, he must strike on the left, and repeat the same on that. It is at first enough to do two 3's perfectly and smoothly. Their number from one impulse may be increased as the skater gains steadiness and skill; the art of accomplishing this being to touch as lightly as possible on each side of the skate successively, so that the first impulse may be preserved and made the most of.

The Back Roll is a means of moving from one foot to another. Suppose the skater to have put himself on the outside edge back of the left leg, with considerable impulse, by means of the 3 performed on the right—not bearing hard on the edge, for the object is to change it, and take up the motion on the right foot—this is effected by throwing the left arm and shoulder back, and turning the face to look over them; when, having brought the inside of his left

skate to bear on the ice, he must immediately strike from it to the outside back of the other, by pressing it into the ice as forcibly as he can at the toe. Having thus been brought to the backward roll on the right foot, he repeats the same with it.

The Back Cross Roll is done by changing the balance of the body, to move from one foot to the other, in the same manner as for the back roll. Here the stroke is from the outside instead of the inside edge of the skate; the edge on which he is skating not being changed, but the right foot, which is off the ice, being crossed at the back of the left, and put down, and the stroke taken at the same moment, from the outside edge of the left skate at the toe. As, in the back roll of both forms, the strokes are but feeble, the skater may, from time to time, renew his impulse as he finds occasion, by commencing anew with the 3. The large outside backward roll is attained by a run, when the skater, having gained all the impulse he can, strikes on the outside forward of the right leg, turns the 3, and immediately puts down the left on the outside back. He then, without further effort, flies rapidly over the ice; the left arm being raised, the head turned over the right shoulder, and the right foot turned out and pointed.

ROWING.

INDEPENDENTLY of being one of the finest recreations both of youth and manhood, this delightful occupation may be said to be eminently conducive to health. The very fact that, by the exertion necessary for the action of rowing, the muscles of the body are more regularly and equally than usual, brought into play, should be a strong inducement to boys to practise this vigorous pastime, as early and as much as possible. And it should always be remembered, that it need never exceed the bounds of moderation; otherwise, that which should be only an enjoyment, too frequently is considered a task; and it sometimes occurs, that the trifling and temporary bodily fatigue experienced after a little more than ordinary exertion, is magnified ten-fold, and boys no longer derive from rowing, that gratification necessary to its complete enjoyment.

The benefits that result from it are considerable; indeed, the very position the body occupies, while in the act of rowing, is an evidence of its advantages to the general

system as a salutary exercise. The muscular exertion of the arms, leg, and back, is equal, or very nearly so; and the regular motion of the former, not only does not impede respiration, but rather assists it, by producing a corresponding regularity of breathing. Besides this, the chest is well expanded, and this fact alone is the best argument we can adduce in favour of rowing as a healthy amusement, for in and near that region of the body, are situated all those organs which impart life and motion to the human frame; which thus obtains, in time, increased strength. The muscles become more powerful, and capable of enduring greater fatigue, and the whole body naturally imbibes a hardihood and vital energy that gradually increase as youth grows up to manhood, till it, at last, becomes able to endure a vast amount of exertion and labour. Contrast, for an instant, the appearance of a boy, to whom his parents, from mistaken notions of rearing, have denied all open air amusements—compare his sickly features, his colourless eye, the pallor of his thin lip, his vapid expression, and his frequently attenuated frame and disproportionate limbs; with one who has been taught to practise those healthy recreations, which it has been the purpose of this book to inculcate, and what a difference do we not behold. In the latter, the unmistakable signs of health: that most glorious gift the Almighty has bestowed on man, present themselves.

A warm, rich glow mantles over his cheeks, his eye is bright and clear, his lip full and red, his limbs well developed and admirably proportioned. All, indeed, breathes of a sense of health and enjoyment. And it may be affirmed beyond doubt, that the existence of a boy thus disciplined to bodily exercise, must as nearly approach the perfection of happiness, as it is possible to enjoy on this planet, which is all the "world" to us mortals.

We shall divide our present subject into several heads; first and foremost let us treat of

THE BOAT.

The ancients tell us that a straw, or some say the branch of a tree, floating on the water, suggested itself to the mechanical imagination of man, who thereupon, and long ere the use of iron was known, fashioned from the trunk of a tree the first rude boat. The primitive attempt was at first unsuccessful, till it was discovered that by tapering the ends of the boat (those being the parts on which the wind blew with the greatest force), and thus rendering the middle broader than the extreme ends, the boat itself was kept afloat. It would be quite out of place to explain the gradual improvements in the art of boat-building; it must be apparent to all that this branch of mechanics has been brought to the utmost perfection, uniting at once a degree of elegance with safety quite unparalleled. That this primi-

tive method has suggested itself naturally to different races of mankind, is proved by the fact that the North American Indians possessed a light species of canoe and the South Sea Islanders a cocoa nut shallop or pirogue: the design of which they could never have obtained from more civilized nations, because there is ample proof that they possessed these means of crossing rivers, lakes, and even seas, previously to the first visit of the white men. It is easy to imagine how the paddle and its use first suggested itself, and if it was very unlike the elegantly-shaped scull or oar of the present day, no one can deny that the same principle belongs to both. It remained for later years to bring it to perfection and to invent the *rowlocks* of a boat, by which so much additional impetus is obtained by the stroke of the oar, and subsequently the *outriggers*, which are daily increasing in public estimation for their good qualities.

IN STARTING

Too much caution cannot be exercised in stepping into a boat, more especially from one to another, at which times accidents frequently occur unless great care is taken to preserve the equilibrium of your body as well as of the boat. That, however, effected, the next care is to push the latter off. This should be done by turning its stern or head towards the tide, and with the aid of a boat-hook, or

if that be wanting, a scull or oar, giving it an impetus till she is fairly afloat.

SCULLING.

If you are about to row with a pair of sculls, seat yourself in the centre of the boat, or amid-ships, as it is technically termed, so that the boat's equipoise may be equal, and the water may present an equal resistance round the boat. Keep the back, from the shoulders down to the hip, perfectly upright: the feet should be in the middle of the stretcher, and pressed firmly against the footboard, the toes turned outward, and the heels tolerably close together. Do not, previously to making the "pull," or stroke, extend the legs quite, but in bending forward keep the knees inclined, and the former will necessarily be wide apart, so that when the stroke is finished they will close together again, becoming very nearly straight. Hold the sculls by the thinner part of their handles, which must extend or cross over each other in front just sufficiently to allow you, when "pulling home," to bring one hand likewise over the other. Dip the blade lightly in the water till it is entirely immersed; you will then perceive that the moment this is effected the arms and body incline backward, the latter assuming an upright position as the arms remain extended; then pull the scull firmly and rapidly, but without jerking, until the hands reach the chest; nearly the middle is the

best, and with the act of feathering the stroke is terminated. In sculling, we have said, the hands pass over each other, but there is no arbitrary rule as to whether the right hand should pass over the left or *vice versâ*; many scientific watermen use the right hand uppermost when rowing *against tide*, and the left hand above when *with tide*. Above all, never forget to keep a good look-out over the shoulder. Most of the accidents, and much of the lamentable loss of life, occur from negligence on this point.

PULLING WITH THE OAR.

You seat yourself differently when using the oar, than when sculling. In the former, sit nearer to the gunwale of the boat, which is balanced by the next oarsman sitting at an equal distance from the other gunwale. It is unnecessary to recapitulate the general directions as to position and method of striking, which we have just given under the head of sculling. In holding the oar, you must recollect, when sitting on the starboard side, to clasp the thin part of the handle, close to the end, with your right hand, and with your left the loom, or shoulder of the oar, at the point where it begins to increase in thickness. The body should lean forward from the hips, the back kept straight, and the stroke is made in precisely the same mode as when sculling. After the stroke is made, the back will have lost a little of its perpendicular position, the head being erect; the body

and arms will then regain their natural position, and afterwards be brought quickly forward, on the repetition of the stroke. Your eyes should look "straight ahead," as it is the duty of your coxswain to keep the boat free from danger.

FEATHERING.

You will not forget that, previously to pulling, the arms are extended, and the wrists perfectly straight. When the sculls have passed through the water, just at the end of the stroke, the elbows must be lowered, and the wrists raised, so that the back of each hand can be turned towards that part of the arm between the elbow and the shoulder. This is called the fore-arm, and in this mode "feathering" is effected. During the return of the sculls, the hands must be kept in this position, until you are about to begin another stroke, by dipping the former in the water. Then let the sculls be raised a little out of the water, but not too high, otherwise the stroke will be deprived of half its power; and you will not only pull awkwardly, but fall into other faults studiously to be avoided. But be sure to raise the sculls sufficiently high out of the water, or you will probably feather either *under* it or on its surface, and thereby lose the impetus of the stroke, at an unnecessary expenditure of strength.

TO BACK WATER.

The method of effecting this important proceeding in

boating tactics is thus performed. Keep the oars or sculls a little beneath the water, the concave or broad portion of the blade fronting you; then push against it with force, and the boat will consequently *recede* through the water; and thus is accomplished what is technically termed "*backing water*."

CROSSING.

When a boat is being rowed directly across the stream, and another is advancing towards it, *with the tide* in its favour, the latter must proceed astern of the former.

PASSING.

When the channel is narrow, the boat which is overtaken must remain inside, while the boat passing it must take care to keep beyond reach of the other's oars or sculls. This is invariably the regulation, unless it happens that there is more than sufficient space for the advancing boat to retain the inside position without fear of coming in contact with the other's oars or sculls.

MEETING.

When one boat is met by another, that one which has the tide in its favour is bound to give way to the other, if there is not sufficient space for both to proceed uninterruptedly. It often occurs that this space is so narrow and confined as

to cause both boats to come in contact with each other. In such a case, each boat's crew must lift their oars or sculls from the rowlocks, either allowing them to drift alongside, or replacing them in the boat—technically called "*unshipping*" them—till the temporary difficulty is overcome.

TIDES.

On this head it is scarcely needful to observe more, than that, when rowing with the tide the middle of the stream of course is best, as the current at that point is considerably more rapid than at its sides. When however the tide is against you, it must be evident that the sides of the stream will be more favourable to you, in progress, inasmuch as the current, as we said before, has less influence at those places than at the middle.

LANDING.

In order to land or disembark at any particular spot, if the tide is in your favour, let the boat be steered, or guide it yourself when you use no rudder, in a slightly oblique direction towards the place, in order that as you approach it, the stern may be taken down by the current, for it is always better to land stern to tide. On arriving at the place of landing, your first care must be to unship the oars or sculls, and replace them in the boat, their blades forward, and their looms or shoulders aft. Then with the assistance

of the painter or *head-fast*, as it is somewhat more correctly termed, jump ashore, and affix the boat to some object which will insure its security.

REMEMBER

I. That keeping stroke and time are the two chief points demanding an oarsman's care.

II. That each oarsman while rowing must strictly obey the command of the coxswain.

III. And must also be very particular to take his time from the strokesman, or the rower who sits nearest to the boat's stern.

IV. Then when there is any swell on the water, which is caused as well by the paddle of steamboats, as by rough, windy weather, you cannot be too careful in keeping the boat's bow or head well facing it. The swell of a river is sometimes nearly as dangerous to cutters, &c., as is the heavy ground-swell of the Atlantic to the galleys of a man-of-war, which can seldom live in it.

AVOID

I. *Throwing up water.*—This is a source of very great annoyance to others in the boat, and should be studiously avoided.

II. *Catching crabs.*—When any one falls backward from the seat because of his scull or oar passing through the water

while attempting to pull, he is said to "catch a crab," and it is of so unpleasant a nature, that the amateur generally overcomes the ill habit as quickly as possible.

III. *Jerking*—for it is a fault to which powerfully-muscular men are peculiarly prone, because instead of bending back the body gradually, and thus by their mere weight partially pulling, they depend solely on their strength of arm and wrist, and generally pull too suddenly and violently. In consequence of the stroke not being continued by falling backward, it is terminated sooner than it should be, and a *jerk* is the consequence: this destroys the swing of the boat, which should be uniform. But besides this the rower becomes quickly wearied, the propulsive power materially lessened, and it is a source of considerable annoyance to the remainder of the boat's crew.

IV. *Doubling the body*—over the oar at the end of the pull, thereby hindering the advancing forward of the body and arms simultaneously; a feature in good rowing very important.

V. *Slackening the arms too quickly*—which lessens the impetus of the stroke, frequently impedes the progress of the boat.

VI. *Feathering the sculls before they are withdrawn from the water*—or permitting them to be borne along by the boat. By the former you needlessly increase your own exertion, and by the latter you partially stop the boat

These faults will not unfrequently occur when the boat is very light, and draws but a few inches of water, and they often happen even in boats of ordinary size and weight. To avoid them, dip the scull deeper at the beginning of the pull.

VII. *Rowing with the back curved.*—This, as we have previously explained, is a very common blemish, and should be avoided, as the speed is very much decreased in consequence.

VIII. *Pulling into the boat*—as it is calculated to rock it, by which, of course, considerable power is lost. This fault arises from holding the sculls so that the hands are too close together.

IX. *Pulling out of the boat.*—This is the effect produced by an unsteady rower, who is apt to roll towards the gunwale of the boat in falling back after pulling, and is amended by sitting nearer to the gunwale. These last two faults are particularly the case with persons ambitious of distinction, and “showing off,” but deficient of ability and power. By the experienced eye, they are however quickly discovered, and a laugh is the only result.

X. *Rowing round*—which is caused by not dipping the sculls or oar in the water sufficiently deep at first. The rower feels that the water does not offer adequate resistance, and thereupon endeavours to deepen the blade of the oar, thus describing the segment of a circle, and bringing the

flat portion of the blade almost perpendicularly to the water—the boat is consequently pressed down by the strain. “Catching crabs” frequently results from this ill habit, which should be cautiously shunned.

XI. *Capping the oar*—or the end of it, with the hands. Independently of its awkward appearance, it gives birth to many of the faults we have previously cited.

XII. *Not keeping stroke*.—It is very different from not keeping time. It is not *working* in the same manner as the stroke oar, even though you may keep time by dropping your oar into the water at the same moment as the strokesman does. This is perhaps the most dangerous fault of all we have enumerated, inasmuch as the entire progress of the boat depends upon the equal and simultaneous efforts of its crew. Remember, therefore, that the pull must begin directly the blade of your oar is thoroughly immersed in the water.

XIII. *Not keeping time*.—The awkwardness of this fault should alone induce you to overcome it as soon as possible. But if you cannot keep time (that is by not dropping your oar into the water simultaneously with the strokesman) you will find yourself unfit to row with others, and they will shun you in consequence.

SEA ROWING.

The same general remarks we have given as applicable to

river rowing will also be of service on this head; and we need add nothing else than the following cautions. If there is a swell when landing on the sea-shore, exercise somewhat more care than you would on a river. The boats, however, used on the sea, are always stronger, larger, and better manned; but it is always advisable to watch for a smooth, or temporary abatement of the swell, and as soon as a good opportunity presents itself, seize it, and with united strength pull towards the shore, forcing the boat as high upon the beach as possible. It is then the duty of the bowman to jump ashore with the painter, or headfast, in his hand, and drag the boat beyond the reach of the surf. It is the work of a moment for the crew to unship their oars and lay them in the boat, as previously described; and to jump ashore to render assistance to the bowman if needed. This aid should always be tendered on occasions where the boat is large and heavy, and the surf high.

Somewhat less easy of accomplishment is it to launch a boat from the sea beach. If the swell is rather heavy, and the boat large, the two bowmen should enter the boat ready to use their oars at a moment's notice. The remainder of the crew in equal divisions on each side, should then grasp her gunwale, and propel her bow toward the sea, and in order to do this they are generally compelled to enter the water. Not until she is fairly off shore should they jump in, for the probability would be, that if the swell carried her

ROWING.

back, so that she grounded, and shipped a sea, her head would be turned, and she would be capsized by the next sea before her crew could prevent it. It sometimes happens, too, that even when afloat, her head is turned by reason of her crew's movement not being sufficiently rapid in getting her well off: when this occurs, the two bowmen should proceed to the bow with their oars, or still better, with their boat-hooks, and propel the boat's head from the shore, by forcing them into the strand. Remember that your boat's broadside lying to sea is accompanied by very great danger; the boat's stern should always be kept hard to sea if possible, and it will be found much less difficult to keep it thus, than, when the swell has once turned it shoreward, to regain its head-way to sea.

TERMS USED IN BOATING.

Bow.—The head of the boat.

Bow oar.—The right, or *starboard* oar, nearest the bow of the boat.

Bowman.—The man nearest the boat's bow.

Coxswain.—He who steers the boat.

Cut-water.—The stem, or head's point.

Foresheets.—The open space towards the boat's head.

Headfast.—A rope affixed forward to secure the boat after landing.

In Bow.—A direction for the bowman to prepare with his boat-hook to make all clear for shore.

Out-riggers.—The modern improvement on rowlocks.

Bow off.—The direction given by the coxswain for the oars to be laid, in being unshipped, with their blades forward.

Rowlocks.—The interstices made in the boat's gunwale for the insertion of the sculls or oars.

"Ship" the sculls, or oars.—To insert them in the rowlocks ready for rowing.

Stern Sheets.—The space between the bowman's seat and the stern.

Stroke oar.—That which the strokesman uses.

Strokesman.—The rower who sits nearest the stern.

Strokeside.—The right or "port" side.

Thowl pins.—Sometimes used for rowlocks.

Tiller.—The rudder.

Unship sculls.—The order to take them out of the rowlocks.

Weather oar.—So called, w' \leftarrow it is on that side from which the wind blows.

A FEW FINAL REMARKS.

In the preceding hints we have endeavoured to explain, as succinctly as lay in our power, not only the method whereby it is comparatively easy to become an expert rower, but

have recapitulated all those faults which should most studiously be avoided, and those directions cannot, we think, fail to make any one theoretically acquainted with the art of rowing, if he will endeavour to understand and recollect them. The old proverb, "Practice makes perfect," so admirable in itself, is peculiarly applicable in the present instance. The best theory will never make one a master of any art, nor will practice alone effect it. It is by the conjunction of the two, however, that we are enabled to overcome all its obstacles, and to obtain the complete mastery. The difficulties that beset the learner during his first attempts with the scull or oar are manifold, but let him not be disheartened by them. The observance and practice of our directions will soon surmount them. In the meantime, let us advise him to take a few practical lessons from some experienced person, which will considerably facilitate his progress.

And we would seriously impress on each of our young readers the necessity, until they shall have obtained some little knowledge of the art, of not venturing into a boat without some experienced friend or waterman. Many lamentable cases of loss of life have occurred by these premature attempts at rowing. In a little time, with patience and practice, he will, like the "Jolly Young Waterman" himself, be enabled to

"Feather his oars with skill and dexterity."

RIDING.

THIS accomplishment, besides being a most elegant and fascinating exercise, may justly be called one of the "businesses of life," and is besides one of the ambitions to which manhood and boyhood more or less are prone. But we are not about to inflict on our young readers a tiresome dissertation on this subject. The heavier care of endeavouring to explain lucidly, and within our limited compass, the mysteries of riding, presses upon us.

THE HORSE.

This noble creature, the monarch of domestic animals, has been so frequently and so well described as to need no further eulogy from a pen so humble as ours. Suffice it to say, that for beauty, intelligence, docility, and courage, he is not to be surpassed. To the ancients as well as to ourselves, the noble nature of the horse has endeared him; and his was a master-spirit who called this pride of Natural History, the "Friend of Man."

THE SADDLE

Should be fixed carefully, about an inch, or perhaps more, behind the flat bone of the shoulder, called the "*plate bone*," and should be at least 4 inches from the hips. Frequently the saddle is fixed too forward, and when this is the case, the rider is too close to the horse's neck, and is consequently less able to control its motions. Besides, it impedes the free action of the animal's shoulder, and renders him more liable to trip. A crupper is sometimes necessary to keep the saddle from working or "*riding*" forward, and possesses the advantage of permitting the girths to be somewhat more loose than when the girths alone sustain the saddle in its proper position. A saddle that fits well is a luxury, as all riders will tell you, and horses, too, if they could articulate; and your seat is always uneasy if the saddle bears too closely on one side, and the reverse way on the other; remember that it should always press evenly on the ribs. Always tighten the girths equally on both sides of the saddle. It is too generally done on the *near* or left side only, and this is the cause of frequent discomfort both to horse and rider. Take care to buckle the back girth in the first place, and afterwards that in front, which is made to lap over the other so as to preserve it in its proper place. When a horse is malformed, you must, in order that the saddle should not shift on to the withers, tighten the back girth over the front.

THE STIRRUPS.

In order to ascertain the correct length of the stirrups, place the finger-tips of the right hand on one of the stirrup-leather catches, and either increase or diminish the number of holes, until the stirrup just reaches to the right arm-pit. This will be found in most instances to succeed.

THE BRIDLE.

After the saddle is adjusted, the next duty is to remove the halter, and fix the bridle, not the least important of the horse's equipments. And first of the bit—called in former times, the *bittle*. It should be neither too large, nor the contrary, but preserve that happy medium which secures safety to the rider and comfort to the horse. We have not space to enter into a description of the various bits, &c., of modern use, but merely warn our young readers against the use of the *lever* or *curb-bit*, which not only injures the horse's mouth, but ruins his temper and pace, its whole force being concentrated on the animal's jaw. It possesses the power of pinching the bars with such cruel violence that fracture of the bone has not unfrequently occurred, even with branches of no unusual length; and can likewise crush and bruise the skin beneath the jaw and the tender covering of the inside of the mouth. Horses should never be punished unnecessarily, for they vary materially in the degree of command over the mouth. If a horse falls to the ground

through violently pulling one of these lever-bits, the result is frequently fracture of the jaw. But a high-spirited horse will not brook a curb-bit, and the snaffle is then adopted instead; and we would recommend, with the most unqualified approval, the use of the latter *in all cases*. Double reins are perhaps to be preferred to the single rein when a horse will submit to them, inasmuch as they give the rider an entire control over the animal with the left hand merely; and besides, they are stronger than the single snaffle. When you use the double reins, recollect the bridoon or snaffle is regulated by one rein, and the curb by the other. In bridling, look that the curb chain and snap, and the throat-lash, are loose, then introduce the right arm through the reins, so as to separate them, and hold the check-straps and head-stall by the right thumb; after that pass the reins over the animal's head, suffering them to remain on his neck, substitute your left thumb for your right, and guiding the bit into his mouth with the left hand, at the same moment bringing over the horse's ears the head-stall. The throat-lash should be fastened sufficiently loose to enable you to introduce two of your fingers between it and the horse's cheek. Then take care that the curb-chain be not twisted, and draw the links up so as to allow space enough to insert the forefingers between the animal's jaw and the curb. If the horse keeps his head steady, he may be sure the bit is correctly freed; and this will be confirmed by the readiness

with which he obeys his rider, and by his easiness and lightness in hand. If a noseband is added to the bridle it must not be buckled too tightly, but so as to admit the same amount of play.

TO MOUNT,

Stand, whip in left hand with its handle upwards, before the horse's left shoulder, take between the forefinger and thumb of the right hand the snaffle rein at its centre, allowing the curb-rein to remain loose on the animal's neck, draw the former (the snaffle rein) up between the first and third finger of the left hand—the middle finger separating them—until it is sufficiently tight for you to feel the horse's mouth, and let the slack end drop over the middle joint of the forefinger, so that it falls down on the off-side of the animal's neck. Afterwards take the centre of the curb-rein between the forefinger and thumb of the right hand, taking care that they hang more loosely than the snaffle rein. Divide it with the little finger of the left hand; draw the slack ends up the palm, and let them fall over the ends of the snaffle rein on the off-side. This accomplished, then grasp firmly a lock of the horse's mane, with the left hand, using the precaution not to displace the reins it holds—rest it on the animal's neck, within six or eight inches distance from the pommel of the saddle, close to the withers. Then introduce the left foot into the stirrup, and as this is some-

what difficult to tyros, hold it in the right hand for that purpose; after that rest the right hand on the cantle, and raise the body till the right foot is close to the left, and the saddle is pressed by both knees. Shift the right hand from the cantle to the pummel, and move the right leg rapidly, but without jerking or haste, over the horse, and fall easily—it is a little difficult at first—into the saddle; strike the right stirrup quickly with the toe of your right boot, which can be done by inclining it slightly inwards, and as the stirrup swings round insert the foot into it. Practise this a few times at first, because the hand should on no occasion be employed when you lose the stirrups, and you will soon be enabled to drop them, even when galloping, and by striking both toes at once inwards regain possession of them.

The rein should be drawn up, when once seated, and the whip now transferred into the right hand. The snaffle must be held so as to give the horse's head unfettered motion; the curb-chain however will require to be more slackened than the former.

As to position when on horseback, we need scarcely say more than that the head should be held perpendicularly, the chin drawn back, the chest expanded, the shoulders back, and the hip curved. The best advice we can offer on this point is, that the rider should generally bend his looks in front of him, and over the horse's head, between the

ears. The elbows should be close to the sides, the bridle-hand uppermost. Do not sit too backward in the saddle, nor, on the contrary, too close to the pommel. The legs should not remain in that straight, stiff mode so distinctive of the "London Cockney," but the knees slightly curved: so that, in fact, the foot-bar of the stirrup reach about an inch beyond the ankle. It is an excellent method to practise without stirrups, for it should not be forgotten, that these articles are only intended as a means whereby to mount, and to dismount, and as a *rest* merely for the foot, the ankles of which would probably be, otherwise, liable to painful swellings, and not as an aid for a rider to sustain a firm seat.

WALKING.

Let us take "walking" as the first illustration of the horse's paces, and in this act the animal has always one leg off the ground and three on it. In order to urge the horse to move in a walk, increase the action on his mouth a little by holding up the hand, and press his flanks with both legs slightly, but rather more on the right side to indicate the rider's will that the horse should raise or "*lead*" his right leg first. The intelligent animal will quickly obey this command, and then the pressure on the mouth should be eased and that of the legs relaxed, or the walk will soon be increased into a trot.

In order to make the horse halt while walking, the rider's arms should be pressed to his side, and both reins tightened gradually, but decisively, towards the chest, the horseman also bending back his body so as to add a firmer direction to the animal. This intimation should not be repeated by pulling the rein after the first time, as the horse will instinctively obey the check at once.

TROTTING.

If you desire the animal to trot, press both legs firmly to his flanks, and raise the bridle-hand at the same time, but without a jerk. It is frequently necessary to encourage a horse with the voice; and so accustomed does this docile animal become to his rider's word of command, that it is obeyed readily and with wonderful intelligence. Once in a trot, however, you can suffer the hand to resume and retain its proper position, and ease his mouth; do not lean too forward, and let the knees and thighs clasp the horse's flank, not the former merely. The body should be carried so that it can yield without effort to the action of the horse, by rising or sinking in the saddle easily. The animal's action or *pace* should never be anticipated by the rider in his desire to assist it, inasmuch as it looks very awkward and makes him appear as if momentarily in danger of falling off; a person who "rides quicker than his horse," as the phrase goes, is generally a subject for ridicule. Boys feel

the keenness of this as well as "children of a larger growth;" they will therefore be careful how they fall into this ill habit.

CANTERING,

Though by some writers called a species of gallop, should be in reality treated of as a distinct pace, inasmuch as the horse has always in canter three feet off the ground, whereas in galloping he has all four off simultaneously. It is the most difficult of all paces. In order to direct the animal into a canter, let both legs be with the hips slightly inflected, so as to press, by bending forward the thigh on the leading side, with the leg of the opposite side on the croup. Raise the hand simultaneously somewhat above the level of the elbow, and the horse will instinctively bring himself well on his haunches, and will then fall into the canter. But you must not suffer it to lapse into a trot, and to prevent that, should he seem so inclined, keep the hand firmer. Once in a canter, shorten the inner rein more than the other, so that the pace may be retained. To turn when cantering, urge the horse with the leading rein, press the haunches forward and under, and aid by the pressure of the calf of the outward leg and with the outward rein.

GALLOPING.

In this pace the four legs of the horse are lifted off the ground at once, and the pace is consequently far swifter.

The voice of the rider, and a tightened rein, will soon urge the animal into a trot. To gallop to the left, lead with the near fore-leg; to gallop to the right, lead with the right fore-leg, the hind legs of each side following its fore-leg. To change the leading leg, bring the opposite hip foremost, and reverse the reins; the horse will then shift the lead with the opposite leg without any stop. To halt, either when galloping or cantering, should not be attempted too suddenly or violently, unless you can depend upon your horse. The *double stop* is always best; as it is more completely effectual. This is done by inclining the body gently backward; this causes the animal to decrease his speed, and if the body is retained in that position, he obeys the stops at the next "*cadence*." The reins are always shortened in these stops, as we have already mentioned more than once.

LEAPING.

This, the most difficult of all feats in equestrianism, requires only confidence, a perfect balance, and adaptability to the horse's slightest motion. Leaping at the bar, as practised in the riding school, will be found of great utility, inasmuch as it imparts experience enough to the horseman to be of service to the horse by assisting him in his leap. Keep the animal well in hand, and ride him to the leap deliberately, using the voice also as a means of encouraging

him still more, and your steed will measure the distance, and effect the leap alone. A free bridle rein and hand, and a firm, flexible seat, are the rider's chief requisites; and the hand should be kept low and in the centre, with the elbows pressing the side. As the horse rises to the leap the body will naturally assume a forward position, when he descends it is thrown backward. From this it will be perceived the rider's body is in all cases (let the horse proceed at what pace he will) *perpendicular* from the earth, and this is the grand secret of equitation, and all the voluminous rules of the *ménage* resolve themselves into it. The safety in the saddle depends on this upright position; and remember always to give the horse a sufficiently free use of his head as not to lose your command and restraint over him. A hedge is the best and least dangerous leap for practice.

REMEMBER,

1. Should you wish to turn your horse to the right, pull the right rein, and, *vice versâ*, if you wish to proceed to the left; only move the animal's head just sufficiently to see his eye. This, of course, applies equally to cases where you have double reins. There are several species of reinholds in use, each of which is said to possess its exclusive advantage; some of our readers will prefer one kind, some another.

2. To shift or change the bridoon, substitute the fore finger of one hand for the little finger of the other.

3. To shorten reins, let the left hand retain its position, though the fingers should be a little loosened; and after taking the slack reins in your right hand, draw them all equally and evenly, until they are of the requisite length; then take between the fore finger and thumb the loose reins, and draw them tight with the left hand.

4. Never pull the reins with force, or "tug" them hastily; a light hand is the true method of teaching the horse his duty.

5. The horse is what is termed "collected," when he obeys your will readily, and you "*feel*" his mouth just sufficiently to ensure obedience.

6. A heavy hand generally ruins a horse's mouth.

7. A careless one frequently risks the neck or life of the rider.

8. To turn to the right, shorten the right hand upwards.

9. To turn to the left, shorten the left rein.

10. To make the horse stop, shorten both reins.

11. To urge him backwards, pull the reins (shortened) till he has receded as far as you require.

12. Keep the horse's head straight; he should always look before him.

13. And the knuckles should be kept towards the ani-

mal's neck, the finger-nails opposite the rider's chest, the heel firmly pressed down, and the toes turned in.

14. The body should be carried with ease. As we have said before, the rider should mainly depend, for an easy and secure seat, on the perfect equilibrium of the body, rather than upon the support of reins or stirrups, and the clasp of the thigh and leg.

15. Our young readers need scarcely be informed of the common terms used on the road, "*near*" and "*off*," as applied to the side of the horse. They will recollect we have told them, that the rider on mounting stands on the left side of the animal; it is therefore that the nearest side of the steed (or the left side) is called the "*near side*," and by the term "*off side*" is known the right side, or that which is farthest off from the rider.

16. The near side of the road should be kept on all occasions. Our young readers will do well to remember this.

17. But if you desire to pass any vehicle or horse that is proceeding at a slower pace than you, you may pass on the right side, but remember to cross over directly afterwards to your proper side of the road.

18. Be watchful over the horse's every motion. On this depends the security of your seat, if the animal becomes restive, or attempts to rear, or falls.

19. No habit is more ludicrous than that of allowing the

arms to flap up and down, as if beating a tattoo on the ribs with the elbows. Avoid it.

20. Always keep the shoulders square. Any change of position of the hips should not produce a corresponding motion of the former.

21. If a horse is given to stumbling, rearing, or kicking, it is safest to hold the reins with both hands, and to keep them more shortened than usually. In the first mentioned of these instances, press your legs well to the animal's sides, as it gives him confidence in his rider. This should be more particularly attended to when descending a hill. A rearing horse demands your constant attention, and is very dangerous to an inexperienced rider. When the animal begins to rear, separate the reins, tightening one and slackening the other; he will then be compelled to move one of his hind feet, which necessarily causes him to replace his fore feet on the ground again. Turn him round once or twice after this, using the spur gently. If, however, the horse has reared before you can prevent him doing so, lean the body well forward, and endeavour to press him down; then act as before directed. If a horse is addicted to kicking, always hold him with a short bridle; not too much so, however, or it will prevent his progress. When he attempts to kick, throw the body well back, and keep his head thoroughly under subjection. Turning him round, with a gentle use of the spur, will in time correct this fault.

22. Horses frequently become uneasy without any apparent cause. When this is the case, be careful that he is galled by neither bit, curb, saddle, crupper, nor head straps, as it invariably arises from some misfit of the harness. Many riders flog a horse for this uneasiness. To do so is not only hazardous, but cruel.

23. A plunging steed only requires the rider's patience. His efforts nearly always fail to burst his girths. You must take care, however, that he does not jerk you forward, as he gets his head down. Till he is quiet, keep your legs pressed tightly to his sides.

24. A horse that bolts, only requires restraint, not by a perpetual curb, but by checking him by one or two pulls, with both hands depressed.

25. A shying animal needs only a patient kindness and attention, as it generally arises from timidity, and in some cases an imperfect sight. Keep his head high and straight forward, and press him with the leg on the side toward which he shies. Recollect that a horse never rushes in the direction of the object which startles him; and if possible, *encourage him to look at, and proceed close to it.* In some animals, however, this fault can never be corrected; but by these means, many horses have been perfectly cured of it.

26. If a horse attempts to rub your leg against a wall,

turn his head toward it, and he will cease; if not, back him.

27. Restiveness in horses needs firmness, and, never forget it, *patience*; to lose that, is to give the animal the advantage. Except you wish to turn the croup, it is better not to use the spur; and if your horse tries to turn to the left, do not pull to the right, but press him to the left rather more than he desires, and then turn his head in the proper direction, and urge him forward. If he stands stock still, allow him to do so. A minute or two will tire him; and always be willing to make peace with your horse. His instinct is so great and his spirit so high, that he will quickly perceive and avail himself of this willingness.

28. A good horseman can always make his steed lead with either foot; and change is frequently beneficial.

29. It is better to restrain your horse on starting, or he will soon be "blown," as the phrase goes; that is, be out of breath, and his gallop prevented for the day. In a heavy country, never gallop him too fast, and when proceeding over a fallow field, always choose the hedge side, as the ground is generally firmer there. Otherwise the horse becomes rapidly exhausted.

30. In the *ménage*, several terms, such as "*appui*," "*aid*," "*support*," "*correspondence*," &c., are used to denote the mutually good understanding between the horse and his rider, by means of the bridle. And the animal is said

to be "collected," "united," or "dis-united;" but these significations, however useful they may be in the school, are quite unnecessary to be learned, to become even a first-rate horseman.

IN CONCLUSION.

Let us impress upon our young readers, to show conciliation and kindness to this intelligent and noble beast. Any one that is cruel to an animal, can never be admired for his humanity; how much the less, then, when he is so to a creature the most useful to Man, and the most tractable and symmetrical of all. Some riders pull at the reins with all their strength, inflicting much pain to the horse's mouth, and when he backs, punish him with the whip, complaining that he will not stand still. Is there anything more absurd or unjust? The rider ought assuredly to be master, but he can never be so, unless he tempers firmness with gentleness. A good horse performs well, when walking four miles an hour; cantering six and a half; trotting eight and a half; and galloping eleven. An animal out of condition, or even of the ordinary kind, will not keep paces like these.

A horse is nervously sensitive of pain, and ill usage will often break his spirit and temper; but a good tempered animal will evince in many ways his attachment to a kind rider, and so wonderful is his intelligence, that he will

recognise his master's voice and footsteps, even when heard at a distance. Let our readers, then, who are fortunate enough to possess a steed like this, occasionalise the old saw, "Love me, love my dog," and in lieu thereof, adopt as their motto,

"Love me, love my horse!"

SLEIGHT OF HAND, MAGIC, &c.

The Magic Funnel.—You must have a double funnel, that is, two funnels soldered one within the other; the first funnel must have no passage, so that whatever liquor is poured into it cannot run out. The second funnel must be made so, that at the little end you may pour in a quantity of liquor. Having previously filled this funnel with whatever kind of liquor you mean to call for, stop the hole with your thumb, which prevents it from running out, and which you put there under pretence of not losing the liquor you call for, which is poured into the funnel without any hole. When this is drunk, and the funnel turned downward, the liquor which you had previously put in cannot run out; but when you turn the funnel the other way, to the great astonishment of the company the liquor is poured into a glass, and should be the exact quantity of what you had called for. You may then drink the person's health who drank before, and tell him it is a cheap way of treating a friend.

To make cold water hot without the aid of fire.—You give a pint of cold water to one of the company, and taking off the lid of the kettle, you request him to put it into it; you then put the lid on the kettle; take the pint, and the exact quantity of water comes out of the kettle boiling hot.

The kettle has two bottoms. Boiling water has been previously conveyed into it through the nose. There is no passage for the cold water, which is put in where the lid is off; consequently, the hot water can alone pour out.

This trick may be varied, and for the better; as the heat of the water may betray it, should the bottom of the kettle be full. You may therefore propose to change water into wine or punch.

A coffee-pot may be made on a similar plan; but a kettle is preferable, it being more likely from its size and breadth, to baffle the examination of the curious.

This trick may also be improved by an additional expense, so that whatever liquid is on either bottom may be poured out occasionally. For this purpose there must be a double passage to the nose of the kettle, and secret springs to stop either passage.

To lock a padlock on your cheek.—You show a padlock to the company, which, when sufficiently examined, to their great astonishment, you fasten on your cheek, nor can it be taken off, until the padlock is unlocked:

The padlock for this purpose has a bow with a division

which admits the cheek, so contrived that when locked it may neither pinch too hard, nor yet hold so slightly as to be drawn off. There should be a variety of notches on it, that the place of the division may not be noticed.

To put a ring through your cheek.—This trick is performed upon the same principle as the preceding one. You must have two rings exactly similar, one of which has a notch which admits your cheek. When you have shown the perfect ring to the company, you change it for the other, and privately slip the notch over one side of your mouth; in the mean time you slip the whole ring on your stick, hiding it with your hand; then bid some one hold the end of the stick, whip the ring out of your cheek, and smite with it instantly upon the stick, concealing it and whirling the other ring you hold your hand over, round about the stick.

To make iron swim.—Having placed a pail of water before the company, you cast in a piece of iron or steel, and say, “Ladies and gentlemen, you now behold this sinks to the bottom, but you shall soon see it swim on the surface.” Attention being thus obtained, you wave your hand over the pail of water, and the steel immediately ascends to the top. The top of the rod which you wave over the water, must be iron touched by the loadstone, by the attraction of which the steel will ascend in the water.

To make a lighted candle burn under water.—Take a

glass, and fastening a small bit of wood across the mouth, stick thereon a piece of candle lighted; and with a steady hand, convey the glass to the surface of the water; then push it carefully down, and you may see the candle burn under the water, and you may bring it up again alight.

In the same manner you may put a handkerchief rolled tightly together, and it will not be wet. .

The principal art in performing this trick, consists in the nicety of bringing the mouth of the glass exactly level with the surface of the water; for if you put it the least on one side, the water will rush in, and consequently put out the candle, or, in the other case, wet the handkerchief; so that a nice eye and steady hand are necessarily requisite for this performance.

This trick, simple as it is, may serve in some degree to elucidate that contrivance called the diving-bell; as it is certainly done upon the same principle.

The Turks and Christians.—You tell the company the following story. An English captain, whose crew consisted of thirty men, half Christians and half Turks, was wrecked, and for the preservation of some of their lives it was deemed expedient that half of the crew should be thrown overboard, or all must inevitably perish. The captain therefore proposed that every man should come upon deck, and that every ninth person should become the victim. The crew obeyed the summons, and the captain placed them in such

an order, though with apparent impartiality, that every ninth man was a Turk, and all the Christians were preserved. You then take 15 red cards for the Christians, and 15 black cards for the Turks, and you place them in such an order on the table, that every ninth card is black, which you take away as you reckon, till only the 15 red cards remain.

This ingenious trick, which is scarcely known, can be performed by the fourteen vowels in the following couplet:

“From numbers, aid, and art,
Never will fame depart.”

You must begin with the Christians (red cards) O being the fourth vowel in *from*, put down four red cards; U five black ones; E two red; A one black; I three red; A one black; A one red; E two black; E two red; I three black; A one red; E two black; E two red; A one black. You may make three or four lines of the cards, which will make it appear more strange. Be sure to take away every ninth card, saying “Overboard with that Turk,” and all the red cards will remain.

Light produced by Sugar.—If two pieces of loaf-sugar (about a pound each) are struck against each other in the dark, a light-blue flame, like lightning, will be elicited. The same effect takes place when a loaf of sugar is struck with an iron instrument.

To give a ghastly Appearance to Persons in a Room.—

Dissolve salt in an infusion of saffron and spirits of wine. Dip some tow in this solution, and having set fire to it, extinguish all the other lights in the room.

To change Blue to White.—Dissolve copper filings in a phial of volatile alkali: when the vial is unstopped, the liquor will be blue; when stopped, it will be white.

To break a Stick, placed on two Glasses, without breaking the Glasses.—The stick, intended to be broken, must neither be thick, nor rest with any great hold on the two glasses. Both its extremities must taper to a point, and should be of as uniform a size as possible, in order that the centre of gravity may be more easily known. The stick must be placed resting on the edges of the glasses, which ought to be perfectly level, that the stick may remain horizontal, and not inclined to one side more than another. Care also must be taken that the points only shall rest lightly on the edge of each glass. If a speedy and smart blow, but proportioned, as far as can be judged, to the size of the stick, and the distance of the glasses, be then given to it in the middle, it will break in two, without either of the glasses being injured.

To diversify the Colours of Flowers.—Fill a vessel of what size or shape you please, with good rich earth, which has been dried and sifted in the sun, then plant in the same a slip or branch of a plant bearing a white flower (for such only can be tinged), and use no other water to water it with,

but such as is tinged with red, if you desire red flowers; with blue, if blue flowers, &c. With this coloured water, water the plant twice a day, morning and evening, and remove it into the house at night, so that it drink not of the morning or evening dew for three weeks. You will then experience, that it will produce flowers, not altogether tinged with that colour wherewith you watered it, but partly with that, and partly with the natural.

The Learned Swan.—Have a large marble or china bowl, painted inside the rim with the letters of the alphabet; a small swan, in which is concealed a steel or iron pin, is set to swim in the bowl, and on being desired, will select any letters, say those which compose your name—to effect this, the performer of the trick must have a magnet in his pocket, by means of which, as he moves round the table, the swan will be attracted to every letter at which it is required to stop.

Singular Experiment.—Fix at the height of the eye, on a dark ground, a small round piece of white paper, and a little lower, at the distance of about two feet to the right, fix up another, of about three inches in diameter; then place yourself opposite to the first piece of paper, and, having shut the left eye, retire backwards, keeping your eye still fixed on the first object; when you are at the distance of nine or ten feet, the second will entirely disappear from your sight.

Singular Effect on the Visual Organs.—Affix to a dark wall a round piece of paper, an inch or two in diameter; and a little lower, at the distance of two feet on each side, make two marks; then place yourself directly opposite to the paper, and hold the end of your finger before your face in such a manner, that when the right eye is open, it shall conceal the mark on the left; and when the left eye is open, the mark on the right; if you then look with both eyes to the end of your finger, the paper, which is not at all concealed by it from either of your eyes, will nevertheless disappear.

The Thaumatrope—an amusing Toy.—The optical principle on which this machine is constructed, is the duration of an impression on the eye, after the object producing it has been withdrawn, and which is said to last about a second.

The cards are each suspended by a bobbin at either side. There is a *part* of a figure or object represented on one side of the card, and the remainder on the other. For example: we have the head of a watchman on the obverse of one, and the empty watch-box on the reverse; by twirling the bobbins, and consequently spinning the card, the head and box fit together, and we see a complete guardian of the night.

Then there are some choice *jeux d'esprit*. There is on the observe of one card a thing like a well-worn bundle of

hired, out by twirling the bobbins we produce a shower of fresh leaves, and these leaves falling upon that bundle produce the striking likeness of a tree.

Water in a Sling.—Half fill a mug with water, place it in a sling, and you may whirl it around you without spilling a drop; for the water tends more away from the centre of motion towards the bottom of the mug, than towards the earth by gravity.

The Animated Sixpence.—If you pierce a very small hole in the rim of a sixpence, and pass a long black horse hair through it, you may make it jump about mysteriously, and even out of a jug. It is necessary, however, to perform this trick only at night time; and to favour the deception as much as possible, a candle should be between the spectator and yourself.

The Travelling Egg.—Procure a goose's egg, and after opening and cleaning it, put a bat into the shell, and then glue a piece of white paper fast over the aperture. The motions of the poor little prisoner in struggling to get free, will cause the egg to roll about in a manner that will excite much astonishment.

The Balanced Egg.—Lay a looking-glass face upward, on a perfectly even table; then shake a fresh egg, so as to mix up and incorporate the yolk and the white thoroughly; with care and steadiness you may then balance the egg on its point, and make it stand upright on the glass, which it

will be impossible to achieve when the egg is in its natural state.

To Melt Lead in a Piece of Paper.—Wrap a piece of paper very neatly round a bullet, so that it be everywhere in contact with the lead; hold it over the flame of a candle, and the lead will be melted without the paper being burnt; but when once fused, the lead will in a short time pierce a hole in the paper, and drop through it.

The Dancing Pea.—Take a piece of a tobacco-pipe of about three inches in length, one end of which, at least, is broken off even; and with a knife or file make the hole somewhat larger, so as in fact to form a little hollow cup. Next, get a very round pea, put it in the hollow at the end of the bit of pipe, place the other end of the latter in your mouth, hold it there quite in a perpendicular position, by inclining your head back, and then blow through it very softly; the pea will be lifted from its cup, and rise and fall according to the degree of force with which the breath is impelled through the pipe.

The Bottle Imps.—Procure from a glass-blower's three or four little hollow figures of glass, about an inch and a half in height, and let there be a small hole in the legs of each of them. Immerse them in a glass jar, about a foot in height, nearly full of water, and then tie a bladder fast over the mouth. When you wish the figures to go down, press your hand closely on the bladder, and they will instantly

sink; and the moment you take your hand off, they will rise to the surface of the water.

To take a Shilling out of a Handkerchief.—For this trick you must procure a curtain ring of exactly the size of a shilling. At first, put the shilling into the handkerchief; but when you take it out to show that there is no deception, slip the ring in its stead, and while the person is eagerly holding the handkerchief, and the company's eyes are fixed upon the form of the shilling, seize the opportunity of putting it away secretly. When the handkerchief is returned to you again, cautiously withdraw the curtain-ring, and show the shilling.

A Good Catch.—The following is a good catch: Lay a wager with a person that to three observations you will put to him, he will not reply "a bottle of wine." Then begin with some common-place remark, such as, "We have had a fine, or wet day to-day," as it may be; he will answer, of course, "a bottle of wine." You then make another remark of the same kind, as, "I hope we shall have as fine or finer to-morrow," to which he will reply, as before, "a bottle of wine." You must then catch him very sharply, and say, "Ah! there, sir! you've lost your wager;" and the probability is, if he be not aware of the trick, he will say "Why, how can you make that out?" or something similar, forgetting that, though a strange one, it is the third observation you have made.

The Juggler's Joke.—Take a little ball in each hand, and stretch your hands as far apart as you possibly can, one from the other; then tell the company that you will make both the balls come into whichever hand they please, without bringing the hands into contact with each other. If any of the lookers-on challenge your ability of achieving this feat, all you have to do is to lay one of the balls down upon a table, turn yourself round, and take it up with your other hand. Both the balls will thus be in one of your hands, without the latter approaching the other, agreeably to your promise.

The Three Spoons.—This is a most capital trick, but it requires a confederate's aid. Place three silver spoons cross-wise on a table, request any person to touch one, and assure him you will find out the one he touches by a single inspection; although you will leave the room while he does so, and even if he touches it so gently as not to disarrange the order in which they are once put in the slightest degree. You retire; and when he gives you notice to enter, walk up to the table and inspect the spoons, as if trying to ascertain whether there are any finger marks upon them, and then decide. Your confederate, of course, makes some sign, previously agreed upon, to give you notice which is the identical spoon; the actions may be, touching a button of his jacket for the top spoon, touching his chin for the second, and putting his finger to his lips may signify the lowest;

but the precise actions are immaterial, so that the spoon they indicate be understood.

Loud Whisper.—Apartments of a circular or elliptical form are best calculated for the exhibition of this phenomenon. If a person stand near the wall, with his face turned to it, and whisper a few words, they may be more distinctly heard at nearly the opposite side of the apartment, than if the listener were situated nearer to the speaker.

ENIGMAS, RIDDLES, &c.

THE ancients believed that the monster Sphynx was the inventor of riddles. The one she proposed for solution was this :—“ What animal is that which goes upon four legs in the morning,—upon two at noon,—and upon three at night ?” Many persons strove to explain it, but failed, and were torn to pieces by her ; at length, Œdipus, the son of Laius, king of Thebes, solved it, by saying that the animal was a man, who, in the infancy or morning of his life, creeps upon his hands and feet, and so goes on all-fours ; in the noon of his life, walks on two feet ; and in the waning evening and night of old age, requires a stick, and so totters upon three legs. The Sphynx, enraged at the discovery of her riddle, threw herself from a rock and died.

Such is the *fabled* history of the first riddle ; the *true* is not known, as riddles are of remote antiquity ; but we find from Plutarch, that, in his days, the Greek girls often amused themselves with proposing riddles for their companions to unravel. For a party of merry roysterers clus-

tered round a cheerful fire, no amusement is better calculated than a batch of enigmas and riddles; as they possess enough point to rivet the attention of all to their probable meaning, and sufficient humour to provoke many a hearty laugh.

ENIGMAS.

1. 'Twas whispered in heaven, 'twas muttered in hell,
 And echo caught faintly the sound as it fell;
 On the confines of earth 'twas permitted to rest,
 And the depths of the ocean its presence confess'd;
 'Twill be found in the sphere, when 'tis riven asunder;
 'Tis seen in the lightning, and heard in the thunder:
 'Twas allotted to man with his earliest breath,
 It assists at his birth, and attends him in death;
 Presides o'er his happiness, honour, and health,
 Is the prop of his house, and the end of his wealth.
 In the heap of the miser 'tis hoarded with care,
 But is sure to be lost in his prodigal heir.
 It begins every hope,—every wish it must bound;
 It prays with the hermit, with monarchs is crowned.
 Without it the soldier and seaman may roam,
 But woe to the wretch that expels it from home;
 In the whispers of conscience 'tis sure to be found,
 Nor e'en in the whirlwind of passion is drown'd;
 'Twill soften the heart,—though deaf to the ear,
 'Twill make it acutely and instantly hear;

But in short let it rest ; like a beautiful flower,
(Oh breathe on it softly), it dies in an hour.

2. A word of one syllable, easy and short,
Which reads backwards and forwards the same ;
It expresses the sentiments warm from the heart,
And to beauty lays principal claim.
3. A word there is, five syllables contains,
Take one away, no syllable remains.
4. Places of trust I oft obtain,
And protect the house from vermin ;
I act as shepherd on the plain,
And at fairs I'm shown for learning :
In northern climes, a horse I'm seen,
And a roasting jack I too have been ;
Strange as it seems, it's no less true,
That I eat on four legs, and beg on two.
5. Soon as I'm made I'm sought with care ;
For one whole year consulted ;
That time elapsed, I'm thrown aside,
Neglected, and insulted.
6. The beginning of eternity,
The end of time and space ;
The beginning of every end,
And end of every place.

7. A man once launched a vessel large,
And live stock, too, he took in charge;
He did not barter, buy, nor sell :
Whichever wind blew, pleased as well ;
He sailed at random, was to no port bound,
His only wish was soon to run aground.
8. I'm slain to be saved, with much ado and pain;
Scatter'd, dispersed, and gathered up again,
Wither'd, though young ; sweet, yet unperfumed,
And carefully laid up to be consumed.
9. What pleases in the air, and what a horse does not
like, gives the name of a flower.
10. Half a carman, and a whole country, will form the
name of a beautiful flower.
11. What is the longest and yet the shortest thing in the
world,—the swiftest and yet the slowest,—the most divisible
and the most extended,—the least valued and most regret-
ted,—without which nothing can be done,—which devours
everything, however small, and yet gives life and spirits to
every object, however great ?
12. What is that we receive without being thankful for,
—which we enjoy without knowing how we received it,—
which we give away to others without knowing where it is
to be found,—and which we lose without being consciu:
of our loss ?

13. There is a thing was three weeks old,
When Adam was no more ;
This thing it was but four weeks old
When Adam was fourscore.
14. I'm found in loss but not in gain,
If you search there, 'twill be in vain ;
I'm found in hour, but not in day :
What I am, perhaps, you now can say.

CHARADES.

1. Ever eating, never cloying,
All devouring, all destroying,
Never finding full repast,
'Till I eat the world at last.
- 2 My first is four-sixths of a step that is long,
My second's a person of state ;
My whole is a thing that is known to be wrong,
And is a strong symptom of hate.
3. Without my first you cannot stand,
My second, beauteous fair command ;
Together I attend your will,
And am your humble servant still.
4. My first gave us early support,
My next is a virtuous lass ;

To the fields, if at eve you resort,
My whole you will probably pass.

5. In every hedge my second is,
As well as every tree ;
And when poor school-boys act amiss,
It often is their fee.
My first, likewise, is always wicked,
Yet ne'er committed sin :
My total for my first is fitted,
Composed of brass or tin.

6. My first's a prop, my second's a prop, and my whole's
a prop.

7. What a running stream does, and the first syllable of
error, gives a production of nature.

8. My first, if you do, you won't hit ;
My next, if you do you will have it ;
My whole, if you do, you won't guess it.

9. My whole is under my second and surrounds my first.

10. My first I hope you are, my second I see you are,
and my whole I am sure you are.

11. My first is the cause of my second, and my whole is
made sacred by God.

CONUNDRUMS.

1. Why is an undutiful son like one born deaf?
2. Why are the pages of a book like the days of man?
3. Why is a king like a book?
4. Why is the leaf of a tree like the human body?
5. What is that which is lengthened by being cut at both ends?
6. When is small beer not small beer?
7. When is an alderman like a ghost?
8. What animal was in existence before the creation?
9. What is that which the dead and living do at the same time?
10. Where did the witch of Endor live?
11. How many sides are there to a tree?
12. What is that which every living man hath seen,
But never more will see again, I ween?
13. Why was Noah in the ark like a disappointed rat catcher?
14. Why are three couples going to church like a child's penny trumpet?
15. Why is your nose like St. Paul's?
16. When do your teeth usurp the functions of the tongue?
17. What street in London puts you in mind of a tooth which has pained you for a long time?
18. Why does an aching tooth impose silence on the sufferer?

19. To what town in Poland should you go to have it extracted?
20. Which of your teeth are like a dress-maker's fingers and thumb, when she is cutting out a dress?
21. Why is a pack of cards, of only fifty-one in the pack, sent home, like a pack of cards of fifty-two?
22. Which is the oldest tree in England?
23. Why is a man in debt like a misty morning?
24. Why are feet like olden tales?
25. Where was Adam going, when he was in his thirty-ninth year?
26. Why is an image on a pedestal like a hackney-coach when disengaged?
27. Why are fish in a thriving state like fish made to imitate them?
28. Tom went out, his dog with him; he went not before, behind, nor on one side of him, then where did he go?
29. What question is that to which you must answer yes?
30. Why does a miller wear a white hat?
31. In what respect does a bad governess differ from a good one?
32. Why are lovers' sighs like long stockings?
33. Why is a nail fast in the wall like an old man?
34. Why is a man standing on a fishmonger's shop like a busy meddling fellow?
35. What is the most difficult thing in the world?
36. Why are some great men like glow-worms?

37. When is a door not a door?
38. Why is an orange like a church steeple?
39. What word is that, to which if you add a syllable, it will make it shorter?
40. Why is life like a publican's door-post?
41. What letters of the alphabet are likely to come too late for dinner, supposing the whole to be invited?
42. Why are two men fighting a duel like a garden railing?
43. Why is swearing like an old coat?
44. What is that which a coach cannot move without, and yet is not of the least use to it?
45. Why are fixed stars like pens, ink, and paper?
46. Why is a jest like a fowl?
47. Why is the sun like a man of fashion?
48. What do we all do when we first get into bed?
49. When is a nose not a nose?
50. What thing is that that is lower with a head than without one?
51. Why is a cobbler like a king?
52. Why is a cherry like a book?
53. Who was the first that bore arms?
54. What river is that which runs between two seas?
55. When is the river Thames good for the eyes?
56. What place should a glutton be sent to?
57. Why is a watchman like a mill-horse?

58. What wig cannot a barber make ?
59. Why is an inn like a burial ground ?
60. When is a sailor not a sailor ?
61. Of what trade is the sun ?
62. Where should a starving man be sent to ?
63. Who was the first whistler ?
64. What tune did he whistle ?
65. Why are real friends like ghosts ?
66. Why is Satan like a poker ?
67. When is a man not a man ?
68. What bird is a pedlar like ?
69. When is a sailor like a corpse ?
70. Make V less by adding to it.
71. Why is a widow like a gardener ?
72. Why is a hired landau not a landau ?
73. Why is a tight boot like an oak tree ?
74. What two letters of the alphabet make a philosopher ?
75. Why are your nose and chin always at variance ?
76. When you go to bed, why are your slippers like an unsuccessful man ?
77. What is that which is sometimes with a head, sometimes without a head, sometimes with a tail, sometimes without a tail, and sometimes without either head or tail ?
78. Why is the largest city in Ireland likely to be the largest place in the world ?
79. Why is a bad epigram like a poor pencil ?

80. Why is one who lives by cheating sharper than the sharpest?
81. How do you swallow a door?
82. Why is a fruit pie like old port?
83. What is sharper than a razor?
84. Why is a thump like a hat?
85. Why ought a fisherman to be very wealthy?
86. If a fender and fire-irons cost three pounds, what will a ton of coals come to?
87. Why is a summer's day like a passionate man?
88. Why is a watchman like a mill-horse?
89. Why is the monument like a proud man?
90. Why is a key like an hospital?
91. Why is a drawn tooth like a thing forgot?
92. Why is a good man like a bright jewel?
93. Why is an apothecary like a woodcock?
94. Why is it better to have friends than to want them?
95. What is that which is often brought to table, often cut, but never eaten?
96. Why is a jailor like a musician?
97. What is that which lives in winter, dies in summer, and grows with its root upwards?
98. In what place did the cock crow when all the world could hear him?
99. Why is the soul like a thing of no consequence?
100. If you throw a man out of a window, what does he fall against?

THE KEY

TO THE ENIGMAS, RIDDLES, &c.

ENIGMAS.

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|------------------|---------------------|---------------|
| 1. The letter H. | 6. Letter E. | 11. Time. |
| 2. The Eye. | 7. Noah in the Ark. | 12. Life. |
| 3. Monosyllable. | 8. Hay. | 13. The Moon. |
| 4. A Dog. | 9. Lark-spur. | 14. Letter O. |
| 5. An Almanac. | 10. Car-nation. | |

CHARADES.

- | | | |
|---------------|----------------------|-------------------------------|
| 1. Fire. | 5. Candle-stick. | 9. Waist-coat. |
| 2. Stri-king. | 6. Foot-stool. | 10. Well-come (wel-
come). |
| 3. Foot-man. | 7. Flow-er (flower). | 11. Sun-day. |
| 4. Milk-maid. | 8. Mistake. | |

CONUNDRUMS.

- | | |
|--|---|
| 1 Your voice is lost on him. | 6. When it is a little tart. |
| 2. Because they are all num-
bered. | 7. When he is a gobbling (gob-
lin). |
| 3. Because he has pages. | 8. The great shay-hoss (chaos). |
| 4. Because it has veins in it. | 9. They go round with the
world. |
| 5. A ditch. | |

- | | |
|--|---|
| <p>10. At Endor.</p> <p>11. Two, the <i>inside</i> and <i>outside</i>.</p> <p>12. Yesterday.</p> <p>13. Because it was forty days before he saw ere-a-rat (Ararat).</p> <p>14. Because they go too, too, too, (two and two and two).</p> <p>15. Because it is flesh and blood.</p> <p>16. When they are <i>chattering</i>.</p> <p>17. Long-Acre.</p> <p>18. Because it makes him hold his jaw.</p> <p>19. Pul-tusk.</p> <p>20. In-cisors.</p> <p>21. Because they're sent in-complete.</p> <p>22. The <i>Elder</i>-tree.</p> <p>23. Because he is full of dues (dews).</p> <p>24. Because they are leg-ends (legends).</p> <p>25. In his fortieth.</p> <p>26. Because it is on a stand.</p> <p>27. Because they are hearty-fish all (artificial).</p> <p>28. On the <i>other</i> side.</p> <p>29. What does y-e-s spell.</p> <p>30. To keep his head warm.</p> <p>31. One miss-guides and the other guides miss.</p> | <p>32. Because they are high hose, (heigh ho's!)</p> <p>33. Because it is <i>infirm</i>.</p> <p>34. Because he is over a fish house (officious).</p> <p>35. To find out the most difficult thing in the world.</p> <p>36. Because it must be dark when they shine.</p> <p>37. When it is a-jar.</p> <p>38. Because we have a peel from it.</p> <p>39. Short (short-er).</p> <p>40. Because it is chequered.</p> <p>41. Those that come after T. (U, V, W, X, Y, Z.)</p> <p>42. Because they're fencing.</p> <p>43. Because it is a bad habit.</p> <p>44. Noise.</p> <p>45. Because they are stationary, (stationery).</p> <p>46. It contains a merry-thought.</p> <p>47. Because it turns night into day.</p> <p>48. Make an impression.</p> <p>49. When it is a little radish (reddish).</p> <p>50. A pillow.</p> <p>51. Because his nose is above his chin.</p> |
|--|---|

52. Because it is read (red).
 53. Adam.
 54. The Thames, which flows between Chelsea and Battersea.
 55. When it is eye-water (high water).
 56. Eat-on (Eaton).
 57. Because he goes his rounds.
 58. An Ear-wig.
 59. Because the weary traveller there finds rest.
 60. When he is a-board.
 61. A Tanner.
 62. Hungary.
 63. The Wind.
 64. Over the hills and far away.
 65. They are often heard of, but seldom seen.
 66. Because he belongs to the fire-place.
 67. When he's a shaving.
 68. A Hawk.
 69. When he is in the shrouds.
 70. IV.
 71. Because she tries to get rid of her weeds.
 72. Because it is a landau let.
 73. Because it produces a-corn. (acorn).
 74. Y Z. (Wise head).
 75. Because words are constantly passing between them.
76. Because they are *put-off* till the next day.
 77. A wig.
 78. Because every year it is doubling (Dublin).
 79. Because it has got no point.
 80. Because he is a sharper.
 81. Bolt it.
 82. Because it is crusted.
 83. Hunger.
 84. Because it is *felt*.
 85. Because his is all *net profit*.
 86. To ashes.
 87. Because it is hot.
 88. Because he goes his rounds.
 89. Because it is lofty.
 90. Because it has wards in it
 91. Because it is out of the head.
 92. Because all his actions are brilliant.
 93. Because he has a long bill.
 94. Because they are so hard
 95. A pack of cards. [to find.
 96. Because he fingers the keys.
 97. An icicle.
 98. In Noah's ark.
 99. It is immaterial.
 100. His inclination.

GEOGRAPHICAL PLAY.

Let each person of a party write on a piece of paper the name of some town, country, or province: shuffle these tickets together in a little basket, and whoever draws out one is obliged to give an account of some production, either natural or manufactured, for which that place is remarkable. This game brings out a number of curious bits of information which the party may have gleaned in reading or in travelling, and which they might never have mentioned to each other, but from some such motive.

Let us suppose there to be drawn Nuremberg, Turkey, and Iceland, of which the drawers narrate thus:—

Nuremberg has given to the world many useful inventions. Here were first made the pocket-watch, the air-gun, gun-lock, and various mathematical and musical instruments; and at present half the children of Europe are indebted to Nuremberg for toys; and the industry of the inhabitants is extended to teaching birds to pipe.

Turkey is celebrated for its costly carpets, which all the efforts of European art and capital have failed in closely imitating; yet these carpets are woven by the women among the wandering tribes of Asiatic Turkey. The turkey-bird is, however, very absurdly named, since it conveys the false idea that the turkey originated in Asia, whereas it is a native of America. Neither is "Turkey Coffee" grown in Turkey, but is so named from the great consumption of coffee in that country.

Iceland produces in abundance a certain lichen called Iceland Moss, which is brought to England as a medicine, but is in its native country used in immense quantities as an article of common food. When the bitter quality has been extracted by steeping in water, the moss is dried and reduced to powder, and then made into a cake with meal, or boiled and eaten with milk.

STORY-PLAY.

You are to whisper a *word*, which must be a substantive, to the person who begins the play, and who is to tell a short story or anecdote, into which the word is to be frequently introduced. It requires some ingenuity to relate the story in so natural a manner, that the word shall not be too evident, and yet it may be sufficiently marked. When the story is finished, each of the party endeavours to guess the word; and the person who discovers it tells the next story. The following is a specimen:—

“Three young children were coming down the Mississippi with their father in a sort of boat, which they call there a pirogue. They landed on a desert island in that wide river on a bitter snowy evening, in the month of December; their father left them on the island, promising to return after he had procured some brandy at a house on the opposite bank. He pushed off in his little boat, to cross the river; but the wind was high, and the water rough. The children watched

him with tears in their eyes, struggling in his pirogue against the stream, till about half way across, when they saw the boat sink, and never more saw their father. Poor children! they were left alone, exposed to the storm, without fire, shelter, or even food, except a little corn.

“As the night came on, the snow fell faster; and the eldest, who was a girl only six years old, but very sensible and steady for her age, made her little sister and her infant brother creep close to her, and she drew their bare feet under her clothes. She had collected a few withered leaves and branches to cover them, and in this manner they passed the long winter’s night. Next morning, she tried to support her poor weeping companions by giving them corn to chew; and sometimes she made them run about with her, to keep themselves warm.

“In this melancholy state, you may imagine what was her joy when, in the course of the day, she discovered a boat approaching the island. It happily contained some good-natured Indians, who took compassion on the children, shared their food with them, and safely conveyed them to New Madrid in their own *boat*.”

CAPPING VERSES.

Let us suppose a party seated around the parlour fire, and each person to repeat as much of a poem as will complete the sense; the successive quotations all alluding to one

general subject, or, at least, to something touched upon by the previous speaker. The following is a sample, in which eight persons join :—

- A. Heap on more coals, the wind is chill ;
But let it whistle as it will,
We'll keep our merry Christmas still.
- B. Still linger in our northern clime
Some remnants of the good old time ;
And still, within our valleys here,
We hold the kindred title dear.
- C. Decrepit now, December moves along
The planky plains.
- D. Phœbus arise,
And paint the sable skies,
With azure, white and red ;
Rouse Mëmnon's mother from her Tithon's bed,
That she with roses thy career may spread.
- E. Sad wears the hour, heavy and drear,
Creeps, with slow pace, the waning year ;
And sullen, sullen heaves the blast
Its deep sighs o'er the lonely waste.
- F. Who loves not more the night of June,
Than dull December's gloomy noon ?
The moonlight than the fog of frost ?
And can we say which cheats the most ?

- G. Mustering his storms, a sordid host,
Lo! Winter desolates the year.
- H. Yet gentle hours advance their wing,
And Fancy, mocking Winter's night,
With flowers, and dews, and streaming light,
Already decks the new-born spring.

MISCELLANIES.

TO POLISH SHELLS.

MANY species of marine and fresh-water shells are composed of mother-of-pearl, covered with a strong epidermis. When it is wished to exhibit the internal structure of the shells, this epidermis is removed, and the outer testaceous coatings polished down, until the pearly structure becomes visible. It has been a common practice to remove the thick epidermis of shells by means of strong acids, but this is a very hazardous and tedious mode of operation. The best plan is to put the shells into a pan of cold water, with a quantity of quick-lime, and boil them from two to four hours, according to the thickness of the epidermis. The shells should be afterwards gradually cooled, and then some diluted muriatic acid applied carefully to the epidermis, which it will dislodge so that it may be easily peeled off. Two hours are quite sufficient for such shells as the common muscle to boil. After this, they must be polished with

rotten-stone and oil, put on a piece of chamois leather, and then rubbed with a flannel or nail brush.

The epidermis of the *Unio Margaritifera* is so thick that it requires from four to five hours boiling; underneath this epidermis, there is a thick layer of dull calcareous matter, which must be started off with a knife, or other sharp instrument; this requires great labour, but when accomplished, a beautiful mother-of-pearl specimen is obtained, which makes an agreeable variety. Various *Turbos* and *Trochuses* are also deprived of their epidermis, and polished with files, sand-paper, and pumice-stone, till the pearly appearance is obtained. After the operation of polishing and washing with acids, a little Florence oil should be rubbed over, to bring out the colours, and destroy the influence of the acid, should any remain on the shell; it also tends to preserve the shells from decay. The muriatic acid should be applied to the epidermis by means of a feather: it should not be suffered to remain on the outside of the shell for more than a minute or two, and the greatest care should be used to keep the acid from touching, and consequently destroying the enamelled surface of the inside; indeed, some persons coat the parts of the shell which they wish to preserve from the effects of the acid, with bees'-wax. Some conchologists prefer laying white of egg on the shell with a small camel's hair brush, to rubbing them with Florence oil

NOISE IN SHELLS.

Hold the mouth of a sea-shell to the ear, and a singular resonance will be heard from within, which has been fancifully said to resemble the noise of the distant ocean: this effect being caused by the hollow form of the shell and its polished surface enabling it to receive and return the beatings of all sounds that chance to be trembling in the air around the shell.

HOW TO GROW AN OAK IN A HYACINTH-GLASS.

Take an acorn in November or December, and tie a string round it, so that when it is suspended, the blunt end of the acorn, where the cup was, is upwards. Hang it thus prepared, in the middle of a bottle or hyacinth-glass, containing a little water, taking care that the acorn does not reach within an inch of the water; then wrap up the bottle in flannel, and put it in a warm place. In three or four weeks the acorn will have swollen, its coat will have burst, and a little white point will make its appearance at the end opposite the water. This point is the root, for the acorn is becoming an oak: it must, however, still be kept in the dark, and clear of the water, till the young root is, at least, half an inch long. The water may then be allowed to rise higher; but it is only when from the neck of the root a little point begins to turn upward, that it is safe to allow the water to touch it; this point being, in fact, the beginning

of a trunk, which, a century later, may form the timber of a frigate. As soon as this young stem begins to shoot, the oak will require a dose of light, a little every day; and it also yearns for more food, so that its root, which is in reality its mouth, must be allowed to touch the water, and to drink it. The little creature must then have air; it digests, and must have light; it sucks greedily, and must have fresh water given to its root, which, however, should be never wholly covered; just that point where the stem begins being always kept out of the water. The pet may now be set in a window. At first, it will be a stout thread, whitish, and covered with tiny scales,—then the scales will expand a little, and the end become greener. Next will appear some little leaves; hair will begin to grow, veins will branch; the old scales will fall off, and the leaves will slowly arrange themselves upon the stem, each unfolding from the bosom of the other. And thus, out of a little starch and gum, for the acorn was not much more, manifold parts will be curiously produced by the wondrous creative powers of nature.

GLASS FROM STRAW.

Wheat-straw, without any addition, may be melted into a colourless glass with the blow-pipe. Barley-straw melts into a glass of a bright yellow colour.

TO EXTRACT THE PERFUME OF FLOWERS.

Procure a quantity of the petals of any flower which has an agreeable perfume; card or comb thin layers of cotton wool, dip them into the best Florence oil, sprinkle a small quantity of fine salt on the flowers, and place layers of cotton and flowers alternately, in an earthen, or else a wide-mouthed glass vessel, until it is full. Then tie the top closely with a bladder, and place the vessel in a south aspect exposed to the heat of the sun; and in about fifteen days, when opened, a fragrant oil may be squeezed from the whole mass, little inferior, if roses be chosen, to the dear and highly-prized otto or attar of roses.

VEGETABLE SKELETONS.

Procure a large earthen open-topped pan, which will hold about a gallon, and put into it some leaves, seed vessels, &c., of plants; pour over them just so much boiling water as will cover them, and then place the pan upon the tiles of the house, or any other place, exposed to the rays of the sun, or the changes of the weather. Occasionally and carefully stir the leaves, but never change the water. The putrefaction and fermentation will soon ensue, and in about six weeks, or rather more, most of the specimens will be completely macerated, and require no further care than merely to hold them singly under the tap of a water-butt, or a little stream of water poured from a jug, to wash away

all the putrid green pulpy matter. If this matter will not come off easily, when slightly assisted by the thumb and finger, or a small knife, the leaves must be soaked for some short time longer. Such of the leaves as are brittle and liable to break during the rinsing, may be preserved from fracturing by placing them upon a piece of board, and holding them up by the thumb and finger, while the water is running upon them; and if some of the green matter still remain between the veins of the skeleton-leaf, it may speedily be removed by striking the leaf perpendicularly and carefully with a clothes brush. The maceration and cleansing being finished, the leaves will next require bleaching, which may be done very effectually, by putting them in a band-box, with a small quantity of sulphur burning in a little gallipot by the side of them. The most certain method, however, of bleaching objects of this description, is to immerse them in dilute chloride of lime, or chloride of soda, for a few minutes. Amongst the most suitable subjects for this interesting pursuit, will be found the leaves of the white and black Lombardy poplars; the lime and tulip trees, apricot, apple, orange, lemon, box, ivy, holly, and several of the exotic passion flowers, *Magnolia glauca*, *acuminata*, and others. The calices of the *Molucalla lævis* are, when prepared, exceedingly pretty; as are also the calices and seed vessels of the blue-flowered micandra, of the winter cherry, of henbane; the various kinds of cam-

pannias, particularly the Canterbury bell, the hare-bell, and the throatwort; the larger species of mallows, the tree mallow, hoarhound, field and Alpine eryngoes, sea-holly, moon-trefoil, yellow lucern, common hedge nettle, several of the nettles, red hemp nettle, white fraxinella, Jerusalem sage, common thorn apple, atropa; the scutillarias or skull caps; and the capsules of all species of poppies. To these may be added the stalks of the cabbage, radish, flax, hemp, and stinging-nettles; the tubers of the turnip, the involucres of *Astrantia major* and *austriaca*, and of the *Hydrangea hortensis*. The above is a tolerably comprehensive list of those plants, the leaves and calices of which may be reduced to skeletons with the greatest certainty; the leaves of the oak contain so much tannin that it is impossible to decompose them; as is the case also with the leaves of the walnut, hazel, hornbeam, chestnut, maple, elm, willow, sycamore, buckthorn, and tea-trees; care should, therefore, be taken that no leaves of the above-named trees be put in the vessel in which the process of maceration is going on, as they evolve their tanning qualities to such a degree as to hinder the decomposition of all the others in contact with them. It is also impossible to obtain skeletons of the leaves of the fir and camphor trees, and of the laurel, bay, and many other species of evergreens and shrubs, from their highly resinous properties.

ROSIN GAS.

Dip the end of a copper tube, or tobacco pipe stem, into melted rosin, at a temperature a little above that of boiling water; and having taken out the tube or stem, hold it nearly in a vertical position, and blow through it, when bubbles will be formed of all possible sizes, from that of a hen's egg to sizes which can hardly be discerned by the naked eye; and from their silvery lustre and reflection of the different rays of light, they will have a very pleasing appearance. These bubbles generally assume the form of a string of beads, many of them being perfectly regular, and connected by a very fine fibre; but the production is never twice alike. If expanded by hydrogen, they would, probably, occupy the upper part of a room.

TO WRITE BLACK WITH WATER.

Soak a sheet of paper in a solution of sulphate of iron or green copperas, dry it, and dust over it finely-powdered galls; then write upon the paper with a pen dipped in water, and, on drying, the characters will appear black. Similar papers may be prepared by using other solutions and powders: thus, blue may be prepared by soaking it in a solution of sulphate of iron, and dusting it with powdered ferrocyanate of potash.

THE
BOOK OF BIRDS.

THE CONDOR. (*Sarcoramphus gryphus.*)

THE first order of birds, *Raptores*, includes Vultures, Falcons, and Owls. They are distinguished by a strong curved bill, fitted for tearing flesh, having on each side towards the end a projection, like a tooth; the base is frequently covered with a naked membrane, called a cere; the legs are short, and the claws sharp-pointed and considerably curved. It is a remarkable fact that the females of birds of prey, unlike those of the other orders, are rather larger and more powerful than the males.

The Vultures generally have no feathers on the head and upper part of the neck, a peculiarity which enables them to feed more easily on carrion, which is their favourite food. Of these the most remarkable is the CONDOR. Mr. Nuttall says that the Condor derives its name from an Indian word which alludes to its supposed sagacious scent.

It inhabits the whole chain of the Andes of Mexico, Peru, Chili, and Patagonia to the Straits of Magellan, and, on the authority of Lewis and Clarke, they are sometimes seen in the range of the Rocky Mountains, towards the sources of the Missouri. Their peculiar residence is the great chain of the high Andes, where they associate three or four together upon the points of cliffs without either fearing or injuring men, so that they may be approached within four yards without showing alarm, or making on their part any attempt at attack. Hardly an instance is really known of their even assaulting an infant, though some credulous naturalists, with the exaggerating privilege of travellers, have given accounts of their killing young persons of ten or twelve years of age. Their ability for such rapine is not to be doubted, but their natural cowardice forbids the attempt. At the same time, it is not uncommon to see them follow and hover around a young bull until they have torn out his eyes and tongue.

A pair of Condors will not only in this way attack the deer of the Andes, the *puma* or American lion (our panther), the vicogne, and the llama (or American camel), but also the wild heifer. They will pursue it for a long time, occasionally wounding it with their bill and claws, until the unfortunate animal, now stifled and overcome with fatigue, extends its tongue and groans; on which occasion the Condor seizes this member, being a very tender and favorite morsel, and tears out the eyes of his prey, which at

length falls prostrate to the earth and slowly expires. The Condor then gorges himself, and rests in stupidity, and almost gluttonous inebriation, perched upon the highest neighbouring rocks. The formidable hunter, now loaded with his meal, may be driven about without his attempting to fly; and in this state the Indians sometimes pursue them with the *lasso* or noose, and easily take them captive. Thus restrained, the Condor makes extraordinary efforts to rise into the air; but fatigued by the attempt, he begins to disgorge himself freely, an effort he appears to assist by lengthening and shortening the neck, and bringing forward the sheath of his beak. They will approach dwellings when allured by the scent of food; and a dead animal will draw down a crowd of these gluttons, where none at the time are at all visible; they tear and eat with the greatest voracity, pushing sometimes with their feet, and flapping their wings. -

They make no nest, but deposit their eggs upon the naked rock; these are two, wholly white, and three or four inches in length. It is said that the female remains with her young for the space of a year. The young Condor has no feathers. His body, for several months, is covered only with a very fine down or whitish frizzled hair, which resembles that of young owls. This down disfigures the young bird so much, that in this state it appears almost as large as an adult.

The size of the Condor has been greatly exaggerated. It

seldom exceeds three feet in length and nine and a half feet in extent.* The tail one foot two inches. The bill is straight and hooked at the point; the plumage is white in front, everywhere else of a brownish gray; head bare of feathers and covered with hard wrinkled skin, scattered over with blackish hairs, and it has a collar of white silky down between the bare and the feathered part of the neck. The feet are stout, and the nails long and crooked.

ILLUSTRATIVE ANECDOTES.

Sir Francis Head, in his gallop across the Pampas, and his visit to the Andes, frequently encountered Condors. He relates the account of a struggle between one of his Cornish miners and a Condor gorged with food, and therefore not in the best state for a fray. The man began by grasping the bird round the neck, which he tried to break; but the bird, roused by the unceremonious attack, struggled so violently as to defeat the plan; nor, after an hour's struggling, though the miner brought away several of the wing-feathers in token of victory, does it appear that the bird was despatched.

The Condor is not only captured with the lasso, but he is taken by various traps and stratagems: According to Mr. Darwin, the Chilenos are in the habit of marking the trees

* The term *extent*, applied to the description of birds, means the distance from tip to tip of the extended wings.

in which they roost, frequently to the number of five or six together, and then at night climbing up and noosing them. They are such heavy sleepers that this is not a difficult task. Lieutenant Maw saw the Condor's quill used as a pen in the Cordillera.

THE TURKEY-BUZZARD. (*Vultur aura.*)

THERE are many species of Vultures distributed over the various parts of the world, chiefly in the warmer countries, where they are considered very serviceable in consuming the carcasses of dead animals, which would otherwise taint the air. The King Vulture, found in South America and Mexico, and the California Vulture, found on our western coast, are among the American species; but of these the most common, and therefore the most interesting, is the Turkey-Buzzard, which abounds in our Southern States and in the West Indies, where they are commonly protected for their services as scavengers of carrion. In the winter they generally seek out warmth and shelter, hovering often like grim and boding spectres in the suburbs, and on the roofs and chimneys of the houses around the cities of the Southern States.

Mr. Nuttall describes the Turkey-Buzzard as follows :

The Turkey Vulture is about two and a half feet in

length, and six in breadth. Eyes dark or reddish-hazel. The head and neck for about an inch and a half below the ears, furnished with a reddish wrinkled skin, and some tints of blue, sprinkled with short black hairs. From the hind-head to the neck-feathers the space is covered with a black down. The fore-part of the neck is bare to the breast-bone. The plumage of the neck is large and tumid, and, with that of the back and shoulders, nearly black; almost all the rest of the body is of the same colour, in parts inclining to brown. Third primary longest. The wings extend to the end of the tail. The upper plumage is generally glossed with green and bronze, having purplish reflections. Legs feathered to the knees; the feet somewhat webbed. The bill nearly white, often tipped with bright olive green. Weight from four and a half to five pounds.

WASHINGTON EAGLE. (*Falco Washingtonii*.)

THIS splendid bird is found in the mountain regions of Kentucky. It is the largest of all the Eagle tribe. Its length is three feet seven inches; extent of wings ten feet two inches; bill three inches and a quarter. Length of wing when folded thirty-two inches; length of tail fifteen inches; middle claw four inches and three-quarters; hind

claw two inches and a half. The upper parts of the body are dark, shining, coppery-brown; throat, front, and breast, rich bright cinnamon colour. The whole appearance of the bird grand and majestic.

ILLUSTRATIVE ANECDOTES.

Mr. Nuttall says, "It is to the indefatigable Audubon, that we owe the distinct notice and description of this noble Eagle, which first drew his attention while voyaging far up the Mississippi, in the month of February, 1814. At length, he had the satisfaction of discovering its eyry in the high cliffs of Green River in Kentucky, near to its junction with the Ohio; two young were discovered loudly hissing from a fissure in the rocks, on the approach of the male, from whom they received a fish. The female now also came, and with solicitous alarm for the safety of her young, gave a loud scream, dropped the food she had brought, and hovering over the molesting party, kept up a growling and threatening cry by way of intimidation; and, in fact, as our disappointed naturalist soon discovered, she from this time forsook the spot, and found means to convey away her young. The discoverer considers the species as rare; indeed, its principal residence appears to be in the northern parts of the continent, particularly the rocky solitudes around the great north-western lakes, where it can at all times collect its finny prey, and rear its young without the dread of man. In the winter season, about January and February, as well

as at a later period of the spring, these birds are occasionally seen in this vicinity,* rendered perhaps bolder and more familiar by want, as the prevalence of the ice and cold, at this season, drives them to the necessity of wandering further than usual in search of food. At this early period, Audubon observed indications of the approach of the breeding season. They are sometimes seen contending in the air, so that one of the antagonists will suddenly drop many feet downwards as if wounded or alarmed. My friend, Dr. Hayward of Boston, had in his possession one of these fine docile Eagles for a considerable time; but desirous of devoting it to the then Linnæum Museum, he attempted to poison it, by corrosive sublimate of mercury; several times, however, doses even of two drams were given to it concealed in fish, without producing any injurious effect on its health.

“The Washington Eagle, bold and vigorous, disdains the piratical habits of the Bald Eagle, and invariably obtains his own sustenance without molesting the osprey. The circles he describes in his flight are wider than those of the White-headed Eagle; he also flies nearer to the land or the surface of the water; and when about to dive for his prey, he descends in circuitous, spiral rounds, as if to check the retreat of the fish, on which he darts only when within the distance of a few yards. When his prey is obtained,

* Cambridge, Mass.

he flies out at a low elevation to a considerable distance to enjoy his repast at leisure.

“The quantity of food consumed by this enormous bird is very great, according to the account of those who have had them in confinement. Mr. Audubon’s male bird weighed fourteen and a half pounds avoirdupois. One in a small museum in Philadelphia (according to the account of my friend Mr. C. Pickering), also a male, weighed much more, by which difference it would appear that they are capable of becoming exceedingly fat; for the length of this bird was about the same as that of Audubon, three feet six or seven inches. The width, however, was only about seven feet, agreeing pretty nearly with a specimen now in the New England Museum. The male of the Golden Eagle, the largest hitherto known, is seldom more than three feet long.”

THE WHITE-HEADED, OR BALD EAGLE.

(*Haliaeetus leucocephalus*.)

THIS bird is about three feet long, and seven feet broad from tip to tip of the wings. The bill resembles that of the golden eagle, and from the chin hang some small hairy feathers like a beard. As it is found alike in regions of excessive cold and in the torrid zone, it is provided for

enduring rapid changes of temperament, and its whole body is clothed under the feathers with a kind of down, white and soft like that of the swan. This bird builds its nest on some romantic cliff by the sea-shore, or on the bank of some river or lake, and feeds almost entirely upon fish.

It is generally regarded by our countrymen with peculiar respect, as the chosen emblem of our native land. The great cataract of Niagara is mentioned as one of its favourite places of resort, not merely as a fishing station, where it is enabled to satiate its hunger upon its most congenial food, but also in consequence of the vast quantity of four-footed beasts, which unwarily venturing into the stream above, are borne away by the torrent, and precipitated down those tremendous falls.

High o'er the watery uproar silent seen,
 Sailing sedate in majesty serene,
 Now 'midst the pillar'd spray sublimely lost,
 And now emerging, down the rapids toss'd,
 Glides the Bald Eagle, gazing calm and slow
 O'er all the horrors of the scene below;
 Intent alone to sate himself with blood,
 From the torn victims of the raging flood.

The number of birds of prey of various kinds, which assemble at the foot of the rocks to glut themselves upon the banquet thus provided for them, is said to be incredibly great, but they are all compelled to give place to the Eagle when he deigns to feed on dead animals; and the crow and

the vulture submit without a struggle to the exercise of that tyranny, which they know it would be in vain to resist.

ILLUSTRATIVE ANECDOTES.

“We have ourselves,” says Wilson, “seen the Bald Eagle, while seated on the dead carcass of a horse, keep a whole flock of vultures at a respectful distance, until he had fully sated his own appetite:” and he adds another instance, in which many thousands of tree squirrels having been drowned, in one of their migrations, in attempting to pass the Ohio, and having furnished for some length of time a rich banquet to the vultures, the sudden appearance among them of the Bald Eagle at once put a stop to their festivities, and drove them to a distance from their prey, of which the Eagle kept sole possession for several successive days.

THE FALCON. (*Falco communis*.)

THE Falcon is a predaceous bird, of which there are several species. The *Gerfalcon* is the largest, and it is found in the northern parts of Europe; and, next to the eagle, it is the most formidable, the most active, and the most intrepid of all voracious birds, and is the dearest and most esteemed for falconry. The bill is crooked and yel-

low; the irides of the eye dusky; and the whole plumage of a whitish hue, marked with dark lines on the breast, and dusky spots on the back.

The *Peregrine Falcon*, which is the most common kind, is as large as the moor buzzard. The bill is blue at the base, and black at the point; the head, back, scapulars, and coverts of the wings are barred with deep black and blue; the throat, neck, and upper part of the breast are white, tinged with yellow; the bottom of the breast, belly, and thighs are of a grayish white; and the tail is black and blue.

Wilson enumerates no less than ten varieties, dependent chiefly upon age, sex, and country. It is found, more or less abundantly, throughout the whole of Europe, principally in the mountain districts in North, and probably South America, and in New Holland, dwelling in the clefts of rocks, especially such as are exposed to the mid-day sun. It breeds upon the cliffs in several parts of England, but appears to be more common in Scotland and Wales. Its food consists principally of small birds; but it scruples not to attack the larger species, and sometimes gives battle even to the kite.

Falcons rarely take their prey upon the ground, like the more ignoble birds of the class to which they belong; but pounce upon it from aloft, in a directly perpendicular descent as it flies through the air, bear it downwards by the united impulse of the strength and rapidity of their attack,

and sticking their talons into its flesh, carry it off in triumph to the place of their retreat. Like most predatory animals, they are stimulated to action by the pressure of hunger alone, and remain inactive and almost motionless while the process of digestion is going on, and until the renewed cravings of their appetite stimulate them to further exertion.

In different stages of its growth, the Peregrine Falcon has been known by various English names. Its proper appellation among falconers is the Slight Falcon, the term Falcon Gentle being equally applicable to all the species when rendered manageable. In the immature state, this Falcon is also called a Red Hawk, from the prevailing colour of its plumage. The male is called a Tiercel, to distinguish it from the female, which, in the Falcon tribe, is most commonly one-third larger than the male.

ILLUSTRATIVE ANECDOTES.

In China there is said to be a variety which is mottled with brown and yellow. These birds are said to be used by the emperor of China in his sporting excursions, when he is usually attended by his great falconer, and a thousand of inferior rank. Every bird has a silver plate fastened to its foot, with the name of the falconer who has the charge of it; that, in case it should be lost, it may be restored to the proper person; but if it should not be found, the name is delivered to another officer, called the guardian of

lost birds, who, to make his situation known, erects his standard in a conspicuous place among the army of hunters.

In Syria, also, there is a variety of the Gentle Falcon, which the inhabitants call Shaheen, and which is of so fierce and courageous a disposition, that it will attack any bird, however large or powerful, which presents itself. "Were there not," says Dr. Russel, in his account of Aleppo, "several gentlemen now in England to bear witness to the fact, I should hardly venture to assert that, with this bird, which is about the size of a pigeon, the inhabitants sometimes take large eagles.

"This Hawk was in former times taught to seize the eagle under the pinion, and thus depriving him of the use of one wing, both birds fell to the ground together; but the present mode is to teach the Hawk to fix on the back, between the wings, which has the same effect, only that the bird tumbling down more slowly, the falconer has more time to come to his Hawk's assistance; but in either case, if he be not very expeditious, the Falcon is inevitably destroyed.

"I never saw the Shaheen fly at eagles, that sport having been disused before my time; but I have often seen him take herons and storks. The Hawk, when thrown off, flies for some time in a horizontal line, not six feet from the ground; then mounting perpendicularly, with astonishing swiftness, he seizes his prey under the wing, and both together come tumbling to the ground."

THE OSPREY, OR FISHING HAWK.

(*Falco, or Pandion Haliaetus.*)

True to the season, o'er our sea-beat shore,
The sailing Osprey high is seen to soar
With broad unmoving wing; and circling slow,
Marks each loose straggler in the deep below;
Sweeps down like lightning, plunges with a roar,
And bears his struggling victim to the shore.

THIS bird is always found on the sea-shore, or near rivers or lakes, as it feeds entirely on fish. It is common in Great Britain, and also in America, where large colonies are found of it, the birds living together like rooks. "When looking out for its prey," says Dr. Richardson, "it sails with great care and elegance, in undulating and curved lines" at a considerable height above the water, till it perceives its prey, when it pounces down upon it. It seizes the fish with its claws, sometimes scarcely appearing to dip its feet in the water, and at other times plunging entirely under the surface with force sufficient to throw up a considerable spray. It emerges again, however, so speedily, as to render it evident that it does not attack fish swimming at any great depth."

The Osprey builds a large nest either on trees or rocks, and lays two or three eggs, which have a reddish tinge, and are spotted with brown at the larger end. The old birds feed the young ones even after they have left the nest, and only rear one brood in the year.

AMERICAN GOSHAWK.—(*Astur atricapillus*.)

AFTER the eagles and falcons, come the Hawks, which are similar in appearance, but smaller. They, as well as some of the falcons, are famous for having been trained to use in the chase. In the feudal times hawking was the favourite amusement of kings and nobles. We have never heard of its being practised in our country, although it is still common in Persia, and sometimes, though rarely, there are hawking parties on the continent of Europe.

The American Goshawk is twenty-one inches long; extent of wings thirty-seven inches. Its colour is dark ash, tinged with brown. Our species is related to a European one, which extends over the northern countries of the Old World. It is rare, migrating to the south in winter.

ILLUSTRATIVE ANECDOTES.

In Mr. Nuttall's Ornithology we find the following interesting particulars concerning this bird:

On the 26th of October, 1830, I received one of these birds from the proprietor of Fresh Pond Hotel, in the moult, having the stomach crammed with moles and mice, and it was shot in the act of devouring a pigeon.

The Goshawk was held in considerable esteem for falconry, and, according to Bell, was employed for this amusement by the emperor of China, who moved sometimes to these excursions in great state, often bearing a hawk on his

hand, to let fly at any game that might be raised; which was usually pheasants, partridges, quails, or cranes. In 1269, Marco Paulo witnessed this diversion of the emperor, which probably had existed for many ages previous. The falconers distinguished these birds of sport into two classes, namely, those of falconry properly so called, and those of *hawking*; and in this second and inferior class were included the Goshawk, the Sparrow-hawk, Buzzard, and Harpy. This species does not soar so high as the longer-winged Hawks, and darts upon its quarry by a side glance, not by a direct descent, like the true falcon. They were caught in nets baited with live pigeons, and reduced to obedience by the same system of privation and discipline as the falcon.

A pair of these birds were kept for a long time in a cage by Buffon; he remarks, that the female was at least a third larger than the male, and the wings, when closed, did not reach within six inches of the end of the tail. The male, though smaller, was much more fierce and untameable. They often fought with their claws, but seldom used the bill for any other purpose than tearing their food. If this consisted of birds, they were plucked as neatly as by the hand of the poulterer; but mice were swallowed whole, and the hair and skin, and other indigestible parts, after the manner of the genus, were discharged from the mouth rolled up in little balls. Its cry was raucous, and terminated by sharp, reiterated, piercing notes, the more disagreeable the oftener they were repeated, and the cage could never be approached with-

out exciting violent gestures and screams. Though of different sexes, and confined to the same cage, they contracted no friendship for each other which might soothe their imprisonment, and finally, to end the dismal picture, the female, in a fit of indiscriminate rage and violence, murdered her mate in the silence of the night, when all the other feathered race were wrapped in repose. Indeed their dispositions are so furious, that a Goshawk, left with any other falcons, soon effects the destruction of the whole. Their ordinary food is young rabbits, squirrels, mice, moles, young geese, pigeons, and small birds, and, with a cannibal appetite, they sometimes even prey upon the young of their own species. They construct their nests in the highest trees, and lay from two to four eggs of a bluish-white, marked with lines and spots of brown. The egg of our bird, according to Audubon, is without spots.

THE HAWK OWL.—(*Strix funerea.*)

THIS remarkable species, says Mr. Nuttall, forming a connecting link with the preceding genus of the Hawks, is nearly confined to the arctic wilds of both continents, being frequent in Siberia and the fur countries from Hudson's Bay to the Pacific. A few stragglers, now and then, at distant intervals, and in the depths of winter, penetrate on the

one side into the northern parts of the United States; and, on the other, they occasionally appear in Germany, and more rarely in France. At Hudson's Bay they are observed by day flying high, and preying on the white grouse and other birds, sometimes even attending the hunter like a falcon, and boldly taking up the wounded game as it flutters on the ground. They are also said to feed on mice and insects, and (according to Meyer) they nest upon trees, laying two white eggs. They are said to be constant attendants on the ptarmigans in their spring migrations towards the north; and are observed to hover round the camp-fires of the natives, in quest probably of any offal or rejected game.

GREAT HORNED OWL.—(*Bubo Virginiana*.)

THIS noted and formidable Owl is found in almost every quarter of the United States. His favourite residence, however, is in the dark solitudes of deep swamps, covered with a growth of gigantic timber; and here, as soon as evening draws on, and mankind retire to rest, he sends forth such sounds as seem scarcely to belong to this world, startling the solitary pilgrim as he slumbers by his forest fire,

Making night hideous.

Along the mountainous shores of the Ohio, and amidst the

deep forests of Indiana, alone, and reposing in the woods, this ghostly watchman has frequently warned the traveller of the approach of morning, and amused him with his singular exclamations, sometimes sweeping down and around the fire, uttering a loud and sudden *Waugh O! Waugh O!* sufficient to have alarmed a whole garrison. He has other nocturnal solos, no less melodious, one of which very strikingly resembles the half-suppressed screams of a person suffocating, or throttled, and cannot fail of being exceedingly entertaining to a lonely, benighted traveller, in the midst of an Indian wilderness!

This species inhabits the country round Hudson's Bay; and according to Pennant, who considers it a mere variety of the Eagle Owl (*Strix bubo*) of Europe, is found in Kamtschatka; extends even to the arctic regions, where it is often found white; and occurs as low as Astrakan. It has also been seen white in the United States; but this has doubtless been owing to disease or natural defect, and not to climate.

It preys on young rabbits, squirrels, rats, mice, partridges, and small birds of various kinds.

ILLUSTRATIVE ANECDOTES.

The Great Horned Owl is famous for his depredations on the poultry yard. A very large one, who had his wing broken by a shot while on a foraging expedition of this

kind about a farm-house, was captured and kept for several days, and at length disappeared, no one knew whither.

Almost every day after this, hens and chickens also disappeared, one by one, in an unaccountable manner, till in eight or ten days very few were left remaining. The fox, the minx, and weasel, were alternately the reputed authors of this mischief, until one morning, the old lady herself, rising before day to bake, in passing towards the oven, surprised her late prisoner, the Owl, regaling himself on the body of a newly killed hen! The thief instantly made for his hole under the house, from whence the enraged matron soon dislodged him with the brush-handle, and without mercy despatched him. In this snug retreat were found the greater part of the feathers, and many large fragments, of her whole family of chickens.

There is something in the character of the Owl so recluse, solitary, and mysterious, something so discordant in the tones of its voice, heard only amid the silence and gloom of night, and in the most lonely and sequestered situations, as to have strongly impressed the minds of mankind in general with sensations of awe and abhorrence of the whole tribe. The poets have indulged freely in this general prejudice; and in their descriptions and delineations of midnight storms, and gloomy scenes of nature, the Owl is generally introduced to heighten the horror of the picture.

Ignorance and superstition, in all ages, and in all countries,

listen to the voice of the Owl, and even contemplate its physiognomy with feelings of disgust, and a kind of fearful awe. The priests, or conjurers, among some of our Indian nations, have taken advantage of the reverential horror for this bird, and have adopted the *Great Horned Owl*, the subject of the present account, as the symbol or emblem of their office.

“Among the Creeks,” says Mr. Bartram, in his *Travels*, p. 504, “the junior priests, or students, constantly wear a white mantle, and have a Great Owl skin cased and stuffed very ingeniously, so well executed as almost to appear like the living bird, having large, sparkling glass beads or buttons, fixed in the head for eyes. This insignia of wisdom and divination they wear sometimes as a crest on the top of the head; at other times the image sits on the arm, or is borne on the hand. These bachelors are also distinguished from the other people by their taciturnity, grave and solemn countenance, dignified step, and singing to themselves songs or hymns in a low, sweet voice, as they stroll about the town.”

Nothing is a more effectual cure for superstition than a knowledge of the general laws and productions of nature; nor more forcibly leads our reflections to the first, great, self-existent CAUSE of all, to whom our reverential awe is then humbly devoted, and not to any of his dependent creatures. With all the gloomy habits and ungracious tones of the Owl, there is nothing in this bird supernatural

or mysterious, or more than that of a simple bird of prey, formed for feeding by night, like many other animals, and of reposing by day. The harshness of its voice, occasioned by the width and capacity of its throat, may be intended by Heaven as an alarm and warning to the birds and animals on which it preys, to secure themselves from danger. The voices of all carnivorous birds and animals are also observed to be harsh and hideous, probably for this very purpose.

The Great Horned Owl is not migratory, but remains with us the whole year. During the day he slumbers in the thick evergreens of deep swamps, or seeks shelter in large hollow trees. He is very rarely seen abroad by day, and never but when disturbed. In the month of May they usually begin to build. The nest is generally placed in the fork of a tall tree, and is constructed of sticks piled in considerable quantities, lined with dry leaves and a few feathers. Sometimes they choose a hollow tree; and, in that case, carry in but few materials. The female lays four eggs, nearly as large as those of a hen, almost globular, and of a pure white. In one of these nests, after the young had flown, were found the heads and bones of two chickens, the legs and head of the golden-winged woodpecker, and part of the wings and feathers of several other birds. It is generally conjectured that they hatch but once in the season.

According to all authorities, Owls have been regarded as objects of superstition; and this has sometimes been taken

advantage of by the well informed, for purposes far from what ought to be the duty of a better education to inculcate. None are more accessible to such superstitions than the primitive natives of Ireland, and the north of Scotland. Dr. Richardson thus relates an instance, which came to his own knowledge, of the consequences arising from a visit of this nocturnal wanderer:—

“A party of Scottish Highlanders, in the service of the Hudson’s Bay Company, happened, in a winter journey, to encamp after nightfall in a dense clump of trees, whose dark tops and lofty stems, the growth of more than one century, gave a solemnity to the scene that strongly tended to excite the superstitious feelings of the Highlanders. The effect was heightened by the discovery of a tomb, which, with a natural taste often exhibited by the Indians, had been placed in this secluded spot. Our travellers, having finished their supper, were trimming their fire preparatory to retiring to rest, when the slow and dismal notes of the Horned Owl fell on the ear with a startling nearness. None of them being acquainted with the sound, they at once concluded, that so unearthly a voice must be the moaning of the spirit of the departed, whose repose they supposed they had disturbed, by inadvertently making a fire of some of the wood of which his tomb had been constructed. They passed a tedious night of fear, and, with the first dawn of day, hastily quitted the ill-omened spot.”

THE SWALLOW. (*Hirundo rustica*.)

THE second order of birds, *Insectores*, or Perching Birds, includes an immense number of genera and species. We shall notice the more interesting, without troubling our readers with their numerous subdivisions. We commence with the Swallow, as one of the most common.

Swallows are easily distinguished from all other birds, not only by their general structure, but by their twittering note and mode of flying, or rather darting from place to place.

They appear in the temperate regions in April, and building in some out-house, or in part of a human dwelling, they lay their eggs and hatch their young. About August they disappear, and do not return till the following spring. Swallows kept in a cage moult about Christmas, and seldom live till spring.

There are several species of the Swallow: the general characters, a small beak, but large wide mouth, for the purpose of swallowing flying insects, their natural food; and long forked tail and extensive wings, to enable them to pursue their prey, belong to all of them. The common house Swallow builds under the eaves of houses, or in chimneys, near their top: the Martin also builds under eaves, and very commonly against the upper corner or side of our very windows, and seems not afraid at the sight of man, yet it cannot be tamed, or even kept long in a cage.

The nature of the Swallow's nest is worthy our serious observation: how the mud is extracted from the sea-shores, rivers, or other watery places; how masoned and formed into a solid building, strong enough to support a whole family, and to face the "pelting storm," are wonders which ought to raise our mind to Him who bestowed that instinct upon them.

ILLUSTRATIVE ANECDOTE.

It is related that a pair of Swallows built their nest for two successive years on the handle of a pair of garden shears, that were stuck up against the boards in an outhouse; and, therefore, must have had their nest spoiled whenever the implement was wanted. And what is still more strange, a bird of the same species built its nest on the wings and body of an owl that happened to hang dead and dry from the rafters of a barn, and so loose as to be moved by every gust of wind. This owl, with the nest on its wings, and with eggs in the nest, was taken to the museum of Sir Ashton Lever as a curiosity. That gentleman, struck with the singularity of the sight, furnished the person who brought it with a large shell, desiring him to fix it just where the owl had hung. The man did so; and in the following year a pair of Swallows, probably the same, built their nest in the shell, and laid eggs.

THE CHIMNEY SWALLOW.

THE Chimney Swallow is on the head, neck, back, and rump, of a shining black colour, with purple gloss and sometimes with a blue shade; the throat and neck are of the same colour; the breast and belly are white, with a dash of red. The tail is forked, and consists of twelve feathers. The wings are of the same colour with the back. Swallows feed upon flies, worms, and insects; and generally hunt their prey on the wing.

THE BANK SWALLOW.

THIS appears (says Mr. Wilson) to be the most sociable with its kind, and the least intimate with man, of all our Swallows; living together in large communities of sometimes three or four hundred. On the high sandy bank of a river, quarry, or gravel-pit, at a foot or two from the surface, they commonly scratch out holes for their nests, running them in a horizontal direction to the depth of two and sometimes three feet. Several of these holes are often within a few inches of each other, and extend in various strata along the front of the precipice, sometimes for eighty or one hundred yards. At the extremity of this hole, a

little fine, dry grass, with a few large, downy feathers, form the bed on which their eggs, generally five in number, and pure white, are deposited.

The young are hatched late in May; and here I have taken notice of the common crow; in parties of four or five, watching at the entrance of these holes, to seize the first straggling young that should make its appearance. From the clouds of Swallows that usually play round these breeding-places, they remind one at a distance of a swarm of bees.

The Bank Swallow arrives here earlier than either of the preceding; begins to build in April, and has commonly two broods in the season. Their voice is a low mutter. They are particularly fond of the shores of rivers, and, in several places along the Ohio, they congregate in immense multitudes.

BALTIMORE ORIOLE. (*Oriolus Baltimore.*)

THIS is a bird of passage, arriving in Pennsylvania, from the south, about the beginning of May, and departing towards the latter end of August, or beginning of September. During migration, the flight of the Baltimore is high above all the trees, and is straight and continuous; it is mostly performed during the day, as they are usually observed alighting, always singly, about the setting of the sun, utter-

ing a note or two, and darting into the lower branches to feed, and afterwards to rest.

From the singularity of its colours, the construction of its nest, and its preferring the apple-trees, weeping willows, walnut and tulip-trees, adjoining the farm-house, to build on, it is generally known, and, as usual, honoured with a variety of names, such as Hang-nest, Hanging-Bird, Golden Robin, Fire-Bird (from the bright orange seen through the green leaves, resembling a flash of fire), &c., but more generally the Baltimore Bird, so named, as Catesby informs us, from its colours, which are black and orange, being those of the arms or livery of Lord Baltimore, formerly proprietary of Maryland.

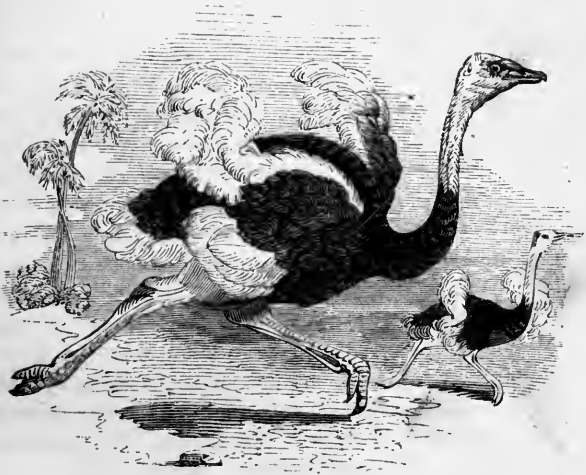
Their principal food consists of caterpillars, beetles, and bugs, particularly one of a brilliant glossy green, fragments of which are almost always found in their stomach, and sometimes these only.

The Baltimore inhabits North America from Canada to Mexico, and is even found as far south as Brazil.

ILLUSTRATIVE ANECDOTES.

There is nothing more remarkable (says Mr. Nuttall) in the whole instinct of our Golden Robin, than the ingenuity displayed in the fabrication of its nest, which is, in fact, a pendulous cylindric pouch of five to seven inches in depth, usually suspended from near the extremities of the high,

drooping branches of trees (such as the elm, the pear, or apple-tree, wild cherry, weeping willow, tulip-tree, or buttonwood). It is begun by firmly fastening natural strings of the flax of the silk weed, or swamp-hollyhock, or stout artificial threads, round two or more forked twigs, corresponding to the intended width and depth of the nest. With the same materials, willow down, or any accidental ravelings, strings, thread, sewing-silk, tow, or wool, that may be lying near the neighbouring houses, or round the grafts of trees, they interweave and fabricate a sort of coarse cloth into the form intended; towards the bottom of which they place the real nest, made chiefly of lint, wiry grass, horse and cow hair, sometimes, in defect of hair, lining the interior with a mixture of slender strips of smooth vine bark, and rarely with a few feathers, the whole being of a considerable thickness, and more or less attached to the external pouch. Over the top, the leaves, as they grow out, form a verdant and agreeable canopy, defending the young from the sun and rain. There is sometimes a considerable difference in the manufacture of these nests, as well as in the materials which enter into their composition. Both sexes seem to be equally adepts at this sort of labour, and I have seen the female alone perform the whole without any assistance, and the male also complete this laborious task nearly without the aid of his consort; who, however, in general, is the principal worker. I have observed a nest made almost wholly of tow, which was laid out for the convenience of a





male bird; who, with this aid, completed his labour in a very short time, and frequently sung in a very ludicrous manner, while his mouth was loaded with a mass larger than his head. So eager are they to obtain fibrous materials, that they will readily tug at, and even untie hard knots made of tow. In Audubon's magnificent plates, a nest is represented as formed outwardly of the long-moss; where this abounds, of course, the labour of obtaining materials must be greatly abridged. The author likewise remarks, that the whole fabric consists almost entirely of this material, loosely interwoven, without any warm lining, a labour which our ingenious artist seems aware would be superfluous in the warm forests of the lower Mississippi. A female, which I observed attentively, carried off to her nest a piece of lamp-wick ten or twelve feet long. This long string, and many other shorter ones, were left hanging out for about a week before both the ends were wattled into the sides of the nest. Some other little birds, making use of similar materials, at times twitched these flowing ends, and generally brought out the busy Baltimore from her occupation in great anger.

The haste and eagerness of one of these airy architects, which I accidentally observed on the banks of the Susquehanna, appeared likely to prove fatal to a busy female, who, in weaving, got a loop round her neck, and no sooner was she disengaged from this snare, than it was slipped round her feet, and thus held her fast beyond the power of escape. The male came frequently to the scene, now changed from

that of joy and hope into despair, but seemed wholly incapable of comprehending or relieving the distress of his mate. In a second instance, I have been told that a female has been observed dead in the like predicament.

THE ROBIN. (*Turdus migratorius.*)

THIS well-known bird, being familiar to almost everybody, will require but a short description. It measures nine inches and a half in length; the bill is strong, an inch long, and of a full yellow, though sometimes black, or dusky near the tip of the upper mandible; the head, back of the neck, and tail, is black; the back and rump, an ash colour; the wings are black, edged with light ash; the inner tips of the two exterior tail-feathers are white; three small spots of white border the eye; the throat and upper part of the breast is black, the former streaked with white; the whole of the rest of the breast, down as far as the thighs, is of a dark orange; belly and vent, white, slightly waved with dusky ash; legs, dark brown; claws, black and strong. The colours of the female are more of the light ash, less deepened with black; and the orange on the breast is much paler, and more broadly skirted with white.

The name of this bird bespeaks him a bird of passage, as

are all the different species of thrushes we have; but the one we are now describing, being more unsettled, and continually roving about from one region to another, during fall and winter, seems particularly entitled to the appellation. Scarce a winter passes but innumerable thousands of them are seen in the lower parts of the whole Atlantic states, from New Hampshire to Carolina, particularly in the neighbourhood of our towns; and, from the circumstance of their leaving, during that season, the country to the north-west of the great range of the Alleghany, from Maryland northward, it would appear that they not only migrate from north to south, but from west to east, to avoid the deep snows that generally prevail on these high regions for at least four months in the year.

The Robin builds a large nest, often on an apple-tree, plasters it in the inside with mud, and lines it with hay or fine grass. The female lays five eggs, of a beautiful sea-green. Their principal food is berries, worms, and caterpillars. Of the first he prefers those of the sour gum. So fond are they of gum-berries, that, wherever there is one of these trees covered with fruit, and flocks of Robins in the neighbourhood, the sportsman need only take his stand near it, load, take aim, and fire; one flock succeeding another, with little interruption, almost the whole day: by this method, prodigious slaughter has been made among them with little fatigue. When berries fail, they disperse themselves over the fields, and along the

fences, in search of worms and other insects. Sometimes they will disappear for a week or two, and return again in greater numbers than before; at which time the cities pour out their sportsmen by scores, and the markets are plentifully supplied with them at a cheap rate.

ILLUSTRATIVE ANECDOTES.

In January, 1807, two young men, in one excursion, shot thirty dozen Robins. In the midst of such devastation, which continued many weeks, and, by accounts, extended from Massachusetts to Maryland, some humane person took advantage of a circumstance common to these birds in winter, to stop the general slaughter. The fruit called poke-berries is a favourite repast with the Robin, after they are mellowed by the frost. The juice of the berries is of a beautiful crimson, and they are eaten in such quantities by these birds, that their whole stomachs are strongly tinged with the same red colour.

A paragraph appeared in the public news papers, intimating, that, from the great quantities of these berries which the Robins had fed on, they had become unwholesome, and even dangerous food; and that several persons had suffered by eating of them. The strange appearance of the bowels of the birds seemed to corroborate this account. The demand for, and use of them, ceased almost instantly;

and motives of self-preservation produced at once what all the pleadings of humanity could not effect.

When fat, they are in considerable esteem for the table, and probably not inferior to the *Turdi* of the ancients, which they bestowed so much pains on in feeding and fattening. The young birds are frequently and easily raised, bear the confinement of the cage, feed on bread, fruits, &c., sing well, readily learn to imitate parts of tunes, and are very pleasant and cheerful domestics. In these I have always observed (says Wilson) that the orange on the breast is of a much deeper tint, often a dark mahogany or chestnut colour owing, no doubt, to their food and confinement.

THE NIGHTINGALE. (*Sylvia luscinia.*)

ALL the birds we have hitherto described are American. We now come to a bird of the Old World, celebrated by the poets of all ages. It is thus described by an English writer:—

The Nightingale has little to boast, if we consider its plumage, which is of a pale tawny colour on the head and back, dashed with a little shade of olive; the breast and upper part of the belly incline to a grayish tint, and the lower part of the belly is almost white; the exterior web

of the quill-feathers is of a reddish brown; the tail of a dull red; the legs and feet ash-coloured; the irides hazel; and the eyes large, bright, and staring. It is hardly possible to give an idea of the extraordinary power which this small bird possesses in its throat, as to extension of sound, sweetness of tone, and versatility of notes. Its song is composed of several musical passages, each of which does not continue more than the third part of a minute; but they are so varied, the passing from one tone to another is so fanciful and so rapid, and the melody so sweet and so mellow, that the most consummate musician is pleasingly led to a deep sense of admiration at hearing it. Sometimes joyful and merry, it runs down the diapason with the velocity of lightning, touching the treble and the bass nearly at the same instant; at other times, mournful and plaintive, the unfortunate *Philomela* draws heavily her lengthened notes, and breathes a delightful melancholy around. These have the appearance of sorrowful sighs; the other modulations resemble the laughter of the happy. Solitary on the twig of a small tree, and cautiously at a certain distance from the nest, where the pledges of his love are treasured under the fostering breast of his mate, the male fills constantly the silent woods with his harmonious strains; and during the whole night entertains and repays his female for the irksome duties of incubation. For the Nightingale not only sings at intervals during the day, but he waits till the blackbird and the thrush have uttered their evening call,

even till the stock and ring doves have, by their soft murmurings, lulled each other to rest, and then he pours forth his full tide of melody.

—————Listening Philomela deigns
To let them joy, and purposes, in thought
Elate, to make her night excel their day.

THOMSON.

It is a great subject of astonishment that so small a bird should be endowed with such potent lungs. If the evening is calm, it is supposed that its song may be heard above half a mile. This bird, the ornament and charm of the spring and early summer evenings, as it arrives in April, and continues singing till June, disappears on a sudden about September or October, when it leaves England to pass the winter in the North of Africa and Syria. Its visits to England are limited to certain counties, mostly in the south and east; as, though it is plentiful in the neighbourhood of London, and along the south coast in Sussex, Hampshire, and Dorsetshire: it is not found in either Cornwall or Wales. As soon as the young are hatched, the song of the male bird ceases, and he only utters a harsh croak, by way of giving alarm when any one approaches the nest. Nightingales are sometimes reared up, and doomed to the prison of a cage; in this state they sing ten months in the year, though in their wild life they sing only as many weeks. Bingley says that a caged Nightingale sings much more sweetly than those which we hear abroad in the spring.

THE RED-WINGED BLACKBIRD, OR TROOPIAL (*Sturnus predatorius.*)

THIS bird is common in all parts of North America. He is nine inches in length and fourteen in extent. The general colour is glossy black, with a very splendid scarlet marking, like a broad epaulette, on his shoulders. His habits will be learned from the following

ILLUSTRATIVE ANECDOTES.

Mr. Wilson calls this bird the Red-winged Starling, and gives us from his own observation the following curious particulars of his winter habits:—

The Red-winged Starlings, though generally migratory in the states north of Maryland, are found during winter in immense flocks, sometimes associated with the purple grackles, and often by themselves, along the whole lower parts of Virginia, both Carolinas, Georgia, and Louisiana, particularly near the sea-coast, and in the vicinity of large rice and corn-fields.

In the months of January and February, while passing through the former of these countries, I was frequently entertained with the aerial evolutions of these great bodies of Starlings. Sometimes they appeared driving about like an enormous black cloud carried before the wind, varying its shape every moment; sometimes suddenly rising from

the fields around me with a noise like thunder; while the glittering of innumerable wings of the brightest vermilion amid the black cloud they formed, produced on these occasions a very striking and splendid effect. Then, descending like a torrent, and covering the branches of some detached grove, or clump of trees, the whole congregated multitude commenced one general concert or chorus, that I have plainly distinguished at the distance of more than two miles, and, when listened to at the intermediate space of about a quarter of a mile, with a slight breeze of wind to swell and soften the flow of its cadences, was to me grand, and even sublime.

The whole season of winter, that, with most birds, is passed in struggling to sustain life in silent melancholy, is, with the Red-wings, one continued carnival. The profuse gleanings of the old rice, corn, and buckwheat-fields, supply them with abundant food, at once ready and nutritious; and the intermediate time is spent either in aerial manœuvres, or in grand vocal performances, as if solicitous to supply the absence of all the tuneful summer tribes, and to cheer the dejected face of nature with their whole combined powers of harmony.

From the same excellent authority we gather the following particulars of the Troopial's ravages in the corn-fields:—

Before the beginning of September, the flocks have become numerous and formidable; and the young ears of maize, or Indian corn, being then in their soft, succulent, milky, state, present a temptation that cannot be resisted. Rein-

forced by numerous and daily flocks from all parts of the interior, they pour down on the low countries in prodigious multitudes. Here they are seen, like vast clouds, wheeling and driving over the meadows and devoted corn-fields, darkening the air with their numbers. Then commences the work of destruction on the corn, the husks of which, though composed of numerous envelopments of closely-wrapped leaves, are soon completely or partially torn off; while from all quarters myriads continue to pour down like a tempest, blackening half an acre at a time, and, if not disturbed, repeat their depredations, till little remains but the cob and the shrivelled skins of the grain; what little is left of the tender ear, being exposed to the rains and weather, is generally much injured.

All the attacks and havoc made at this time among them with the gun, and by the hawks,—several species of which are their constant attendants,—has little effect on the remainder. When the hawks make a sweep among them, they suddenly open on all sides, but rarely in time to disappoint them of their victims; and, though repeatedly fired at, with mortal effect, they only remove from one field to an adjoining one, or to another quarter of the same enclosure. From dawn to nearly sunset, this open and daring devastation is carried on, under the eye of the proprietor; and a farmer, who has any considerable extent of corn, would require half-a-dozen men at least, with guns, to guard it; and even then, all their vigilance and activity would not

prevent a good title of it from becoming the prey of the Blackbirds. The Indians, who usually plant their corn in one general field, keep the whole young boys of the village all day patrolling round and among it; and each being furnished with bow and arrows, with which they are very expert; they generally contrive to destroy great numbers of them.

It must, however, be observed, that this scene of pillage is principally carried on in the low countries, not far from the sea-coast, or near the extensive flats that border our large rivers; and is also chiefly confined to the months of August and September. After this period, the corn having acquired its hard, shelly coat; and the seeds of the reeds or wild oats, with a profusion of other plants, that abound along the river shores, being now ripe, and in great abundance, they present a new and more extensive field for these marauding multitudes. The reeds also supply them with convenient roosting places, being often in almost unapproachable morasses; and thither they repair every evening, from all quarters of the country.

In some places, however, when the reeds become dry, advantage is taken of this circumstance, to destroy these birds, by a party secretly approaching the place, under cover of a dark night, setting fire to the reeds in several places at once, which being soon enveloped in one general flame, the uproar among the Blackbirds becomes universal; and, by the light of the conflagration, they are shot down

in vast numbers, while hovering and screaming over the place. Sometimes straw is used for the same purpose, being previously strewed near the reeds and alder bushes, where they are known to roost, which being instantly set on fire, the consternation and havoc are prodigious; and the party return by day to pick up the slaughtered game. About the first of November, they begin to move off towards the south; though, near the sea-coast, in the states of New Jersey and Delaware they continue long after that period.

THE SKYLARK. (*Alauda arvensis.*)

ONE of the most celebrated of all the English birds is the Skylark. His music being associated with the rural employments and pleasures of that enlightened and refined nation, has occasioned his being described in rapturous terms by their poets and novelists.

The Skylark is generally distinguished from most other birds, by the long spur on his back toe, the earthy colour of his feathers, and by singing as he mounts up in the air. The common Skylark is not much bigger than the house-sparrow. These birds generally make their nest in meadows among the high grass, and the tint of their plumage resembles so much that of the ground, that the body of the bird is hardly distinguishable as it hops along.

The daisied lea he loves, where tufts of grass
 Luxuriant crown the ridge: there, with his mate,
 He founds their lonely house, of withered herbs,
 And coarsest spear-grass; next the inner work,
 With finer, and still finer fibres lays,
 Rounding it curious with his speckled breast.

GRAHAME.

Larks breed thrice a year, in May, July, and August, rearing their young in a short space of time.

ILLUSTRATIVE ANECDOTES.

The instinctive warmth of attachment which the female Skylark bears towards her own species, even when not her nestling, is remarkable. "In the month of May," says Buffon, "a young hen bird was brought to me, which was not able to feed without assistance. I caused her to be reared; and she was hardly fledged, when I received from another place, a nest of three or four unfledged larks. She took a strong liking to these new comers, which were but little younger than herself; she tended them night and day, cherished them beneath her wings, and fed them with her bill. Nothing could interrupt her tender offices. If the young ones were torn from her she flew to them as soon as they were liberated, and would not think of effecting her own escape, which she might have done a hundred times. Her affection grew upon her; she neglected food and drink; she at length required the same support as her adopted offspring, and expired at last, consumed with maternal soli-

citude. None of the young ones long survived her. They died one after another; so essential were her cares, which were equally tender and judicious."

The Lark mounts almost perpendicularly, and by successive springs, into the air; where it hovers at a vast height. Its descent is in an oblique direction, unless threatened by some ravenous bird of prey, or attracted by its mate; when it drops to the ground like a stone. On its first leaving the earth, its notes are feeble and interrupted; but, as it rises, these gradually swell to their full tone. As the Lark's flight is always at sun-rise, there is something in the scenery that renders the music of the lark peculiarly delightful: the opening morning, and the landscape just gilded by the rays of the returning sun, and the beauty of the surrounding objects, all contribute to heighten our relish for its pleasing song.

THE CARDINAL BIRD. (*Cardinalis Virginianus*.)

THIS is one of our most common cage birds; and is very generally known, not only in North America, but even in Europe, numbers of them having been carried over both to France and England, in which last country they are usually called Virginia Nightingales. To this name, Dr. Latham observes, "they are fully entitled," from the clearness and

variety of their notes, which, both in a wild and domestic state, are very various and musical: many of them resemble the high notes of a fife, and are nearly as loud. They are in song from March to September, beginning at the first appearance of dawn, and repeating a favourite stanza, or passage, twenty or thirty times successively; sometimes, with little intermission, for a whole morning together, which, like a good story too often repeated, becomes at length tiresome and insipid. But the sprightly figure and gaudy plumage of the Red-Bird, his vivacity, strength of voice, and actual variety of note, and the little expense with which he is kept, will always make him a favourite.

The Cardinal Bird is eight inches long, and eleven in extent. The whole upper parts are a dusky red, except the sides of the neck and the head, which, as well as all the lower parts, are bright vermilion, and chin and front black. The head is ornamented with a pointed crest, which may be raised or lowered at pleasure. The beak is red, thick and strong. The female is smaller, but nearly as brilliant in plumage, and sings nearly as well as the male.

ILLUSTRATIVE ANECDOTES.

The opinion which so generally prevails in England (says Wilson) that the music of the groves and woods of America is far inferior to that of Europe, I, who have a thousand times listened to both, cannot admit to be correct. We cannot with fairness draw a comparison between the depth

of the forest in America, and the cultivated fields of England; because it is a well-known fact, that singing birds seldom frequent the former in any country. But let the latter places be compared with the like situations in the United States, and the superiority of song, I am fully persuaded, would justly belong to the western continent. The few of our song birds that have visited Europe extort admiration from the best judges. "The notes of the Cardinal Grosbeak," says Latham, "are almost equal to those of the nightingale." Yet these notes, clear and excellent as they are, are far inferior to those of the wood thrush, and even to those of the brown thrush, or thrasher. Our inimitable mocking bird is also acknowledged, by themselves, to be fully equal to the song of the nightingale, "in its whole compass." Yet these are not one tenth of the number of our singing birds. Could these people be transported to the borders of our woods and settlements, in the month of May, about half an hour before sunrise, such a ravishing concert would greet their ear as they have no conception of.

The males of the Cardinal Grosbeak, when confined together in a cage, fight violently. On placing a looking-glass before the cage, the gesticulations of the tenant are truly laughable: yet with this he soon becomes so well acquainted, that, in a short time, he takes no notice whatever of it; a pretty good proof that he has discovered the true cause of the appearance to proceed from himself. They



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are hardy birds, easily kept, sing six or eight months in the year, and are most lively in wet weather. They are generally known by the names, Red-Bird, Virginia Red-Bird, Virginia Nightingale, and Crested Red-Bird, to distinguish them from another beautiful species, the Scarlet Tanager.

I do not know that any successful attempts have been made to induce these birds to pair and breed in confinement; but I have no doubt of its practicability, by proper management. Some months ago, I placed a young, unfledged cow-bird, whose mother, like the cuckoo of Europe, abandons her eggs and progeny to the mercy and management of other smaller birds, in the same cage with a Red-Bird, which fed and reared it with great tenderness. They both continue to inhabit the same cage, and I have hopes that the Red-Bird will finish his pupil's education by teaching him his song.

THE MOCKING BIRD. (*Mimus Polyglottus*.)

THIS splendid songster is not remarkable for the beauty of his plumage. His general colour is ashy, whitish beneath, tips of the wing-coverts and lateral tail-feathers white; general form slender and graceful; length nine inches and a half, extent thirteen inches. He is found in various parts

of America, from the Middle States to Brazil. His food consists of insects, berries, and worms.

ILLUSTRATIVE ANECDOTES.

Mr. Wilson, an enthusiastic admirer of the Mocking Bird, thus describes his song:—

The Mocking Bird loses little of the power and energy of his song by confinement. In his domesticated state, when he commences his career of song, it is impossible to stand by uninterested. He whistles for the dog,—Cæsar starts up, wags his tail, and runs to meet his master. He squeaks out like a hurt chicken,—and the hen hurries about with hanging wings, and bristled feathers, clucking to protect its injured brood. The barking of the dog, the mewing of the cat, the creaking of a passing wheelbarrow, follow with great truth and rapidity. He repeats the tune taught him by his master, though of considerable length, fully and faithfully. He runs over the quiverings of the canary, and the clear whistlings of the Virginia nightingale, or red-bird, with such superior execution and effect, that the mortified songsters feel their own inferiority, and become altogether silent; while he seems to triumph in their defeat by redoubling his exertions.

Were it not to seem invidious in the eyes of foreigners, I might, in this place, make a comparative statement between the powers of the Mocking Bird, and the only bird, I believe, in the world, worthy of being compared with him,—the

European nightingale. This, however, I am unable to do from my own observation, having never myself heard the song of the latter; and, even if I had, perhaps something might be laid to the score of partiality, which, as a faithful biographer, I am anxious to avoid. I shall, therefore, present the reader with the opinion of a distinguished English naturalist and curious observer, on this subject, the Honourable Daines Barrington, who, at the time he made the communication, was vice-president of the Royal Society, to which it was addressed.

“It may not be improper here,” says this gentleman, “to consider whether the nightingale may not have a very formidable competitor in the American Mocking Bird, though almost all travellers agree, that the concert in the European woods is superior to that of the other parts of the globe.” “I have happened, however, to hear the American Mocking Bird, in great perfection, at Messrs. Vogels and Scotts, in Love Lane, Eastcheap. This bird is believed to be still living, and hath been in England these six years. During the space of a minute, he imitated the woodlark, chaffinch, blackbird, thrush, and sparrow. I was told also that he would bark like a dog; so that the bird seems to have no choice in his imitations, though his pipe comes nearest to our nightingale of any bird I have yet met with.

“With regard to the original notes, however, of this bird, we are still at a loss, as this can only be known by those who are accurately acquainted with the song of the other

American birds. Kalm indeed informs us, that the natural song is excellent; but this traveller seems not to have been long enough in America to have distinguished what were the genuine notes: with us, mimics do not often succeed but in imitations. I have little doubt, however, but that this bird would be fully equal to the song of the nightingale in its whole compass; but then, from the attention which the Mocker pays to any other sort of disagreeable noise, these capital notes would be always debased by a bad mixture."

THE CROW. (*Corvus Corone.*)

MR. WILSON considers our American Crow identical with the European species. It is eighteen inches and a half long, and three feet two inches in extent; the colour shining glossy blue-black; bill and legs black. In other particulars it agrees with the European Crow.

He is the most generally known and least beloved of all our land birds; having (as Mr. Wilson observes) neither melody of song, nor beauty of plumage, nor excellence of flesh, nor civility of manners to recommend him; on the contrary, he is branded as a thief and a plunderer — a kind of black-coated vagabond, who hovers over the fields of the industrious, fattening on their labours, and, by his voracity,

often blasting their expectations. Hated as he is by the farmer, watched and persecuted by almost every bearer of a gun, who all triumph in his destruction, had not Heaven bestowed on him intelligence and sagacity far beyond common, there is reason to believe that the whole tribe (in these parts at least) would long ago have ceased to exist.

It is in the month of May, and until the middle of June, that the Crow is most destructive to the corn-fields, digging up the newly planted grains of maize, pulling up by the roots those that have begun to vegetate, and thus frequently obliging the farmer to replant, or lose the benefit of the soil; and this sometimes twice, and even three times, occasioning a considerable additional expense, and inequality of harvest. No mercy is now shown him. The myriads of worms, moles, mice, caterpillars, grubs, and beetles, which he has destroyed, are altogether overlooked on these occasions. Detected in robbing the hens' nests, pulling up the corn, and killing the young chickens, he is considered as an outlaw, and sentenced to destruction. But the great difficulty is, how to put this sentence in execution. In vain the gunner skulks along the hedges and fences; his faithful sentinels, planted on some commanding point, raise the alarm, and disappoint vengeance of its object. The coast again clear, he returns once more in silence, to finish the repast he had begun. Sometimes he approaches the farm-house by stealth, in search of young chickens, which is in the habit of snatching off, when he can elude the

vigilance of the mother hen, who often proves too formidable for him.

ILLUSTRATIVE ANECDOTES.

A few days ago (says Mr. Wilson), a Crow was observed eagerly attempting to seize some young chickens in an orchard, near the room where I write; but these clustering close round the hen, she resolutely defended them, drove the Crow into an apple-tree, whither she instantly pursued him with such spirit and intrepidity, that he was glad to make a speedy retreat, and abandon his design.

The Crow himself sometimes falls a prey to the superior strength and rapacity of the great owl, whose weapons of offence are by far the more formidable of the two.

“A few years ago,” says a correspondent of Mr. Wilson, “I resided on the banks of the Hudson, about seven miles from the city of New York. Not far from the place of my residence was a pretty thick wood or swamp, in which great numbers of Crows, who used to cross the river from the opposite shore, were accustomed to roost. Returning homeward one afternoon, from a shooting excursion, I had occasion to pass through this swamp. It was near sunset, and troops of Crows were flying in all directions over my head. While engaged in observing their flight, and endeavouring to select from among them an object to shoot at, my ears were suddenly assailed by the distressful cries of a Crow, who was evidently struggling under the talons of a merci-

less and rapacious enemy. I hastened to the spot whence the sounds proceeded, and, to my great surprise, found a Crow lying on the ground, just expiring, and, seated upon the body of the yet warm and bleeding quarry, a *large brown owl*, who was beginning to make a meal of the unfortunate robber of corn-fields. Perceiving my approach, he forsook his prey with evident reluctance, and flew into a tree at a little distance, where he sat watching all my movements, alternately regarding, with longing eyes, the victim he had been forced to leave, and darting at me no very friendly looks, that seemed to reproach me for having deprived him of his expected regale.

“I confess that the scene before me was altogether novel and surprising. I am but little conversant with natural history; but I had always understood, that the depredations of the owl were confined to the smaller birds, and animals of the lesser kind, such as mice, young rabbits, &c., and that he obtained his prey rather by fraud and stratagem, than by open rapacity and violence. I was the more confirmed in this belief, from the recollection of a passage in *Macbeth*, which now forcibly recurred to my memory. The courtiers of King Duncan are recounting to each other the various prodigies that preceded his death, and one of them relates to his wondering auditors, that

An eagle, towering in his pride of place,
Was by a *mousing owl* hawked at and killed.

But to resume my relation: That the owl was the murderer of the unfortunate Crow, there could be no doubt. No other bird of prey was in sight; I had not fired my gun since I entered the wood; nor heard any one else shoot: besides, the unequivocal situation in which I found the parties, would have been sufficient, before any 'twelve good men and true,' or a jury of Crows, to have convicted him of his guilt. It is proper to add, that I avenged the death of the hapless Crow, by a well-aimed shot at the felonious robber, that extended him breathless on the ground."

THE WHIP-POOR-WILL. (*Caprimulgus vociferus*.)

THIS celebrated bird is common in various parts of the United States. Its name is derived from its notes, which seem pretty plainly to articulate the words *whip-poor-will*, the first and last syllable being uttered with great emphasis, and the whole in about a second to each repetition. It has been sometimes confounded with the two other species of the genus, the church-will's-widow and the night-hawk. Mr. Wilson, however, has settled the question, by examining and accurately describing the different species. The Whip-poor-will is nine inches long and nineteen in extent; the bill is blackish, a quarter of an inch long, much stronger

than that of the night-hawk, and bent at the point. The mouth is very large, and beset on the sides with long elastic bristles, which serve as feelers and prevent the escape of the winged insects on which it feeds. Our engraving shows its figure in flight, and its curious markings.

The Whip-poor-will is never seen during the day, unless in circumstances such as have been described. Their food appears to be large moths, grasshoppers, pismires, and such insects as frequent the bark of old rotten and decaying timber. They are also expert in darting after winged insects. They will sometimes skim in the dust, within a few feet of a person, uttering a kind of low chatter as they pass. In their migrations north, and on their return, they probably stop a day or two at some of their former stages, and do not advance in one continued flight.

ILLUSTRATIVE ANECDOTE.

The following little incident, narrated by Mr. Wilson, illustrates at once a trait in the character of the bird, and the gentle and humane disposition of the naturalist:—

In traversing the woods one day in the early part of June, along the brow of a rocky declivity, a Whip-poor-will rose from my feet, and fluttered along, sometimes prostrating herself, and beating the ground with her wings, as if just expiring. Aware of her purpose, I stood still, and began to examine the space immediately around me for

the eggs or young, one or other of which I was certain must be near. After a long search, to my mortification, I could find neither; and was just going to abandon the spot, when I perceived somewhat like a slight mouldiness among the withered leaves, and, on stooping down, discovered it to be a young Whip-poor-will, seemingly asleep, as its eyelids were nearly closed; or perhaps this might only be to protect its tender eyes from the glare of day. I sat down by it on the leaves, and drew it as it then appeared. It was probably not a week old. All the while I was thus engaged, it neither moved its body, nor opened its eyes more than half; and I left it as I found it. After I had walked about a quarter of a mile from the spot, recollecting that I had left a pencil behind, I returned and found my pencil, but the young bird was gone.

THE CUCKOO. (*Cuculus canorus*.)

THE third order of birds, *Scansores*, or Climbers, includes some species which are very interesting. Of these we will first notice the English Cuckoo. She is twelve inches in length from the tip of the bill to the end of the tail; yellow breast, with transverse lines; head, wings, and body marked with black and tawny stripes, legs short and covered

with feathers. The curious part of this bird's history is the fact that the female does not build a nest, but lays her eggs in that of another bird, generally the sparrow.

The American Cuckoo, or Cow-bird, is quite different in its habits from the European Cuckoo, as it builds a nest for its eggs, and hatches its young itself, like other birds.

On the 18th June, 1787, Dr. Jenner examined a nest of a hedge-sparrow, which then contained a Cuckoo's and three hedge-sparrow's eggs. On inspecting it the day following, the bird had hatched; but the nest then contained only a young Cuckoo and one young hedge-sparrow. The nest was placed so near the extremity of a hedge, that he could distinctly see what was going forward in it; and, to his great astonishment, he saw the young Cuckoo, though so lately hatched, in the act of turning out the young hedge-sparrow.

The mode of accomplishing this was curious: the little animal, with the assistance of its rump and wings, contrived to get the bird upon its back, and making a lodgment for its burden by elevating its elbows, climbed backward with it up the side of the nest, till it reached the top; where, resting for a moment, it threw off its load with a jerk, and quite disengaged it from the nest. After remaining a short time in this situation, and feeling about with the extremities of its wings, as if to be convinced that the business was properly executed, it dropped into the nest again.

Dr. Jenner made several experiments in different nests,

by repeatedly putting in an egg to the young Cuckoo; which he always found to be disposed of in a similar manner.

THE KINGFISHER. (*Alcedo ispida.*)

THIS bird is nearly as small as a common sparrow, but the head and beak appear proportionally too big for the body. The bright blue of the back and wings claims our admiration, as it changes into deep purple or lively green, according to the angles of light under which the bird presents itself to the eye. It is generally seen on the banks of rivers, for the purpose of seizing small fish, on which it subsists, and which it takes in amazing quantities, by balancing itself at a distance above the water for a certain time, and then darting on the fish with unerring aim. It dives perpendicularly into the water, where it continues several seconds, and then brings up the fish; which it carries to the land, beats to death, and afterwards swallows. When the bird cannot find a projecting bough, it sits on some stone near the brink, or even on the gravel; but the moment it perceives the fish, it takes a spring upwards of twelve or fifteen feet, and drops from that height upon its prey.

THE GREEN WOODPECKER, (*Picus viridis*),

RECEIVES his name from the facility with which he pecks the insects from the chinks of trees and holes in the bark. The bill is straight, strong, and angular at the end; and in most of the species is formed like a wedge, for the purpose of piercing the trees. The nostrils are covered with bristles. The tongue is very long, slender, cylindrical, bony, hard, and jagged at the end. The toes are placed two forward and two backward; and the tail consists of ten hard, stiff, and sharp-pointed feathers. A Woodpecker is often seen hanging by his claws, and resting upon his breast against the stem of a tree; when, after darting, with great strength and noise, his beak against the bark, he runs round the tree with great alacrity, which manœuvre has made the country people suppose that he goes round to see whether he has not pierced the tree through its trunk; though the fact is, the bird is in search of the insects, which he hopes to have driven out by his blow.

THE TOUCAN, (*Ramphastos tucanus*),

Is a native of South America, very conspicuous for the magnitude and shape of his bill. It is about the size of

the magpie, but the beak alone is nearly as big as the rest of the body; the head is large and strong, and the neck short, in order the more easily to support the bulk of such a beak. The head, neck, and wings are black; the breast shines with a most lovely saffron colour, with a certain redness near the beginning; the lower part of the body and the thighs are of a most beautiful vermilion; the tail is black, but of a bright red at the end.

One of these birds that was kept in a cage was very fond of fruit, which it held for some time in its beak, touching it with great delight with the tip of its feathery tongue, and then tossing them into its throat by a sudden upright jerk; it also fed on birds and other small animals.



CAROLINA PARROT. (*Psittacus Carolinensis*.)

OF one hundred and sixty-eight kinds of Parrots (says Wilson) enumerated by writers as inhabiting the various regions of the globe, this is the only species found native within the territory of the United States. Our engraving shows that this bird has a far more elegant form than the imported parrots which we see in cages. It is thirteen inches long and twenty-one in extent; its forehead and cheeks are orange red; beyond this, for an inch and a half

down and round the neck, a rich and pure yellow; shoulder and bend of the wing, also edged with rich orange red. The general colour of the rest of the plumage is a bright yellowish, silky green with light blue reflections; feet a pale flesh-colour; bill white, inclining to cream-colour. It is found in the Southern and Western States.

ILLUSTRATIVE ANECDOTES.

Mr. Wilson gives the following very lively account of the captive state of one of these birds:—

Anxious to try the effects of education on one of those which I had procured at Big Bone Lick, and which was but slightly wounded in the wing, I fixed up a place for it in the stern of my boat, and presented it with some cockle burs, which it freely fed on in less than an hour after being on board. The intermediate time between eating and sleeping was occupied in gnawing the sticks that formed its place of confinement, in order to make a practicable breach; which it repeatedly effected. When I abandoned the river, and travelled by land, I wrapped it up closely in a silk handkerchief, tying it tightly around, and carried it in my pocket.

When I stopped for refreshment, I unbound my prisoner, and gave it its allowance, which it generally despatched with great dexterity, unhusking the seeds from the bur in a twinkling; in doing which, it always employed its left foot to hold the bur, as did several others that I kept for

some time. I began to think that this might be peculiar to the whole tribe, and that the whole were, if I may use the expression, left-footed; but, by shooting a number afterwards while engaged in eating mulberries, I found sometimes the left, sometimes the right, foot stained with the fruit, the other always clean; from which, and the constant practice of those I kept, it appears, that, like the human species in the use of their hands, they do not prefer one or the other indiscriminately, but are either left or right-footed.

But to return to my prisoner: In recommitting it to "durance vile," we generally had a quarrel; during which it frequently paid me in kind for the wound I had inflicted, and for depriving it of liberty, by cutting and almost disabling several of my fingers with its sharp and powerful bill. The path through the wilderness between Nashville and Natchez is in some places bad beyond description. There are dangerous creeks to swim, miles of morass to struggle through, rendered almost as gloomy as night by a prodigious growth of timber, and an underwood of canes and other evergreens; while the descent into these sluggish streams is often ten or fifteen feet perpendicular, into a bed of deep clay. In some of the worst of these places, where I had, as it were, to fight my way through, the Paroquet frequently escaped from my pocket, obliging me to dismount and pursue it through the worst of the morass before I could regain it. On these occasions, I was several times



The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be supported by a valid receipt or invoice. This ensures transparency and allows for easy verification of the data.

In the second section, the author outlines the various methods used to collect and analyze the data. These include direct observation, interviews with key personnel, and the use of specialized software tools. Each method has its own strengths and limitations, and they are often used in combination to provide a comprehensive view of the situation.

The third part of the report details the findings of the study. It shows that there is a significant correlation between the variables being measured. The data indicates that certain factors have a positive impact on the overall performance, while others tend to have a negative effect. These insights are crucial for developing effective strategies to address the issues identified.

Finally, the document concludes with a series of recommendations based on the findings. It suggests that management should focus on improving the processes that are most affected by the negative factors. Additionally, it recommends regular monitoring and reporting to ensure that the improvements are sustained over time. The author believes that these steps will lead to a more efficient and successful organization.

tempted to abandon it; but I persisted in bringing it along.

When at night I encamped in the woods, I placed it on the baggage beside me, where it usually sat with great composure, dozing and gazing at the fire till morning. In this manner I carried it upwards of a thousand miles, in my pocket, where it was exposed all day to the jolting of the horse, but regularly liberated at meal-times and in the evening, at which it always expressed great satisfaction. In passing through the Chickasaw and Choctaw nations, the Indians, wherever I stopped to feed, collected around me, men, women, and children, laughing, and seeming wonderfully amused with the novelty of my companion. The Chickasaws called it in their language "*Kelinky*;" but when they heard me call it Poll, they soon repeated the name; and wherever I chanced to stop among these people, we soon became familiar with each other through the medium of Poll.

On arriving at Mr. Dunbar's, below Natchez, I procured a cage, and placed it under the piazza, where, by its call, it soon attracted the passing flocks; such is the attachment they have for each other. Numerous parties frequently alighted on the trees immediately above, keeping up a constant conversation with the prisoner. One of these I wounded slightly in the wing, and the pleasure Poll expressed on meeting with this new companion was really amusing. She crept close up to it as it hung on the side

of the cage; chattered to it in a low tone of voice, as if sympathizing in its misfortune; scratched about its head and neck with her bill; and both at night nestled as close as possible to each other, sometimes Poll's head being thrust among the plumage of the other. On the death of this companion, she appeared restless and inconsolable for several days.

On reaching New Orleans, I placed a looking-glass beside the place where she usually sat, and the instant she perceived her image, all her former fondness seemed to return, so that she could scarcely absent herself from it a moment. It was evident that she was completely deceived. Always when evening drew on, and often during the day, she laid her head close to that of the image in the glass, and began to doze with great composure and satisfaction. In this short space she had learned to know her name; to answer, and come when called on; to climb up my clothes, sit on my shoulder, and eat from my mouth. I took her with me to sea, determined to persevere in her education; but, destined to another fate, poor Poll, having one morning, about day-break, wrought her way through the cage, while I was asleep, instantly flew overboard and perished in the Gulf of Mexico.

THE PEACOCK. (*Pavo cristatus*.)

THE Gallinaceous birds (*Rasores*) form the fourth order, which includes many of the domestic fowls, and others useful to man. The Peacock is the most celebrated of the order, the beauty of its plumage having rendered it a favourite in all ages of the world; indeed, there is scarcely anything in nature that can vie with the transcendent lustre of the Peacock's feathers. The changing glory of his neck eclipses the deep azure of ultramarine; and at the least evolution, it assumes the green tint of the emerald, and the purple hue of the amethyst. His head, which is small and finely shaped, has several curious stripes of white and black round the eyes, and is surmounted by an elegant plume, or tuft of feathers, each of which is composed of a slender stem and a small tuft at the top. Displayed with conscious pride, and exposed under a variety of angles to the reflections of versatile light, the broad and variegated disks of his tail, of which the neck, head, and breast of the bird become the centre, claims our well merited admiration. By an extraordinary mixture of the brightest colours, it displays at once the richness of gold, and the paler tints of silver, fringed with bronze-coloured edges, and surrounding eye-like spots of dark brown and sapphire. The female does not share in the beauty of the cock, and her feathers are generally of a light brown. She lays only a few eggs at a time, and these at a distance of usually three or four days

from each other; they are white and spotted, like the eggs of the turkey. She sits from twenty-seven to thirty days.

The loud screamings of the Peacock are worse than the harsh croakings of the raven, and a sure prognostic of bad weather; and his feet, more clumsy than those of the turkey, make a sad contrast with the elegance of the rest.

THE TURKEY, (*Meleagris Gallo-Pavo*),

WAS originally an inhabitant of America, whence he was brought to Europe by some Jesuit missionaries, which accounts for his being called a Jesuit in some parts of continental Europe. Except the tuft on the head, which he does not share with the peacock, and his plumage, which is very different from that of the latter, he is like him in many particulars. The general colour of the feathers is brown and black; and turkeys have about the head, especially the cock, naked and tuberous lumps of flesh of a bright red colour. A long fleshy appendage hangs from the base of the upper mandible, and seems to be lengthened and shortened at pleasure. The hen lays from fifteen to twenty eggs, which are whitish and freckled. The chickens are very tender, and require great care and attentive nursing, before they are able to seek their food.

The wild Turkey-cock is, in our American forests, an object of considerable interest. It perches on the tops of the deciduous cypress and magnolias.

ILLUSTRATIVE ANECDOTE.

A gentleman of New York received from a distant part a Turkey-cock and hen, and with them a pair of bantams; which were put all together into the yard with his other poultry. Some time afterward, as he was feeding them from the barn-door, a large hawk suddenly turned the corner of the barn, and made a pounce at the bantam hen; she immediately gave the alarm, by a noise which is natural to her on such occasions; when the Turkey-cock, who was at the distance of about two yards, and without doubt understood the hawk's intention, flew at the tyrant with such violence, and gave him so severe a stroke with his spurs, as to knock him from the hen to a considerable distance; by which means the bantam was rescued from destruction.

THE PINTADO, or GUINEA HEN.

(*Numida Meleagris.*)

THE Pintado is somewhat larger than the common hen; the head is bare of feathers, and covered with a naked

skin of a bluish colour; on the top is a callous protuberance of a conical form. At the base of the bill on each side hangs a loose wattle, red in the female and bluish in the male. The general colour of the plumage is a dark bluish gray, sprinkled with round white spots of different sizes, resembling pearls, from which circumstance the epithet of *pearled* has been applied to this bird; which, at first sight, appears as if it had been pelted by a strong shower of hail. These spots, which we find of a larger dimension upon some of the feathers of the pheasant, and bigger still on the tail of the peacock, are convincing proofs of a near relationship between these fowls.

ILLUSTRATIVE ANECDOTE.

M. Brue informs us, that when he was on the coast of Senegal, he received, as a present from an African princess, two Guinea fowls. Both these birds were so familiar that they would approach the table and eat out of his plate; and, when they had liberty to fly about upon the beach, they always returned to the ship when the dinner or supper bell rang. .

In a wild state it is asserted that the Pintado associates in numerous flocks. Dampier speaks of having seen betwixt two and three hundred of them together in the Cape de Verd Islands.

THE TAME PIGEON. (*Columba livia*.)

PASSING over the common barn fowl and the partridge, pheasant, quail, and grouse, we come to the common tame Pigeon, as a specimen of the genus *Columba*, of which there are many species. The tame Pigeon is well known as to the shape, but the colour varies so much, that it eludes the rules of classification. They prefer a gregarious life, and abide often, to the number of five or six thousand, in a cot purposely built for them in the neighbourhood of a farm-yard, with proper holes to nestle in. The female Pigeon, through the whole species, lays two eggs at a time, which produce generally a male and a female. It is pleasing to see how eager the male is to sit upon the eggs, in order that his mate may rest and feed herself. The young ones, when hatched, require no food for the first three days, warmth is their only nourishment; they are then fed from the crop of the mother; who has the power of forcing up the half-digested peas which she has swallowed to give them to her young. The young ones, open-mouthed, receive this tribute of affection, and are thus fed three times a day.

ILLUSTRATIVE ANECDOTE.

There are upwards of twenty varieties of the domestic Pigeon, and of these the Carriers are the most celebrated. They obtain their name from being sometimes employed to

convey letters or small packets from one place to another. The rapidity of their flight is very wonderful. Leithgow assures us that one of them will carry a letter from Babylon to Aleppo (which, to a man, is usually thirty days' journey) in forty-eight hours. To measure their speed with some degree of exactness, a gentleman many years ago, on a trifling wager, sent a Carrier Pigeon from London, by the coach, to a friend at Bury St. Edmond's; and along with it a note, desiring that the Pigeon, two days after its arrival there, might be thrown up precisely when the town clock struck nine in the morning. This was accordingly done, and the Pigeon arrived in London at half-past eleven o'clock of the same morning, having flown seventy-two miles in two hours and a half. From the instant of its liberation, its flight is directed through the clouds, at a great height, to its home. By an instinct altogether inconceivable, it darts onward, in a straight line, to the very spot whence it was taken, but how it can direct its flight so exactly will probably for ever remain unknown to us.

THE OSTRICH. (*Struthio camelus*.)

WE place the Ostrich at the head of the fifth order of birds, the *Grallatores*, or Waders. The Ostrich is a native of Africa. It is one of the tallest of birds; as when it

holds up its head it can reach eleven feet in height. The head is very small in comparison with the body, being hardly bigger than one of the toes; it is covered, as well as the neck, with a certain down, or thin-set hairs, instead of feathers. The sides and thighs are entirely bare and flesh-coloured. The lower part of the neck, where the feathers begin, is white. The wings are short and of no use in flying, but when the bird runs, which it does with a strange jumping kind of motion, it raises its short wings, and holds them quivering over its back, where they seem to serve as a kind of sail to gather the wind and carry the bird onwards. The feathers of the back, in the cock, are coal-black; in the hen only dusky, and so soft that they resemble a kind of wool. The tail is thick, bushy, and round; in the cock whitish, in the hen dusky with white tops. These are the feathers so generally in requisition, to decorate the head-dress of ladies and the helmets of warriors.

The Ostrich swallows anything that presents itself, leather, glass, iron, bread, hair, &c.; and the power of digestion in the stomach is so strong that even iron is very much affected by it. An Ostrich in the Zoological Gardens in the Regent's Park, was, however, killed by swallowing a lady's parasol.

O'er the wild waste the stupid Ostrich strays,
In devious search to pick her scanty meal,
Whose fierce digestion gnaws the temper'd steel.

MICKLE'S LUSIAD.

They are polygamous birds; one male being generally seen with two or three, and sometimes with five females. The female Ostrich, in the tropical regions, after depositing her eggs in the sand, trusts them to be hatched by the heat of the climate, and leaves the young ones to provide for themselves.

ILLUSTRATIVE ANECDOTES.

That Ostriches have great affection for their offspring, may be inferred from the assertion of Professor Thunberg, that he once rode past the place where a hen Ostrich was sitting in her nest; when the bird sprang up and pursued him, evidently with a view to prevent his noticing her eggs or young. Every time he turned his horse towards her, she retreated ten or twelve paces; but as soon as he rode on again, she pursued him, till he had got to a considerable distance from the place where he had started her. In the tropical regions, some persons breed Ostriches in flocks; for they may be tamed with very little trouble; and in their domestic state, few animals may be rendered more useful. When M. Adanson was at Podar, a French factory on the southern bank of the river Niger, two young but full-grown Ostriches, belonging to the factory, afforded him a very amusing sight. They were so tame that two little blacks mounted both together on the back of the largest. No sooner did he feel their weight, than he began to run as fast as possible, and carried them several times round the village;

and it was impossible to stop him otherwise than by obstructing the passage. This sight pleased M. Adanson so much, that he wished it to be repeated; and to try their strength, he directed a full-grown negro to mount the smaller, and two others the larger of the birds. This burden did not seem at all disproportioned to their strength. At first, they went at a tolerably sharp trot; but when they became heated a little, they expanded their wings, as though to catch the wind, and moved with such fleetness that they scarcely seemed to touch the ground. The foot of the Ostrich has only two toes; one of which is extremely large and strong, to make its way through the moving sands of the desert.

THE CASSOWARY, (*Casuarus galeatus*.)

Is next in size to the ostrich, but of a different nature. His wings are hardly perceptible, being very short, and entirely concealed under the plumage. The general tint of his feathers is brown, with some spots of vermilion red; his head is small and depressed, with a horny crown; the head and neck are deprived of feathers, and only set with a kind of hairy down. From the bill to the claws the body measures about five feet and a half; about the neck are two protuberances of a bluish colour, and in shape like the

wattles of a cock. Unlike other birds, the feathers of the wings, and other parts of the body, are exactly the same; so that at a distance he looks rather as if he were entirely covered with hairs like a bear, than with plumage like a bird. The Cassowary eats indiscriminately whatever comes in his way, and does not seem to have any sort of predilection in the choice of his food. He is a native of the southern parts of India; the eggs of the female are nearly fifteen inches in circumference, of a grayish ash-colour, marked with green. It has been said of the Cassowary, that he has the head of a warrior, the eye of a lion, the armament of a porcupine, and the swiftness of a courser.

THE WHOOPING CRANE. (*Grus Americana.*)

THIS stately Crane (says Mr. Nuttall), the largest of all the feathered tribes in the United States, like the rest of its family, dwelling amidst marshes, and dark and desolate swamps, according to the season, is met with in almost every part of North America, from the islands of the West Indies, to which it retires to pass the winter, to the utmost habitable regions and fur countries of the North. A few hibernate in the warmer parts of the Union, and some have been known to linger through the whole of the inclement season, in the swamps of New Jersey, near to Cape May. When dis-

covered in their retreats, they are observed wandering along the marshes and muddy flats near the sea-shore, in quest of reptiles, fish, and marine worms. Occasionally they are seen sailing along from place to place with a heavy, silent flight, elevated but little above the surface of the earth. Ever wary, and stealing from the view of all observers, these gaunt shades of something which constantly avoids the social light, impress the mind no less with curiosity than aversion, and it is surprising, that furtive and inharmonious as owls, they have not excited the prejudice of the superstitious.

At times they utter a loud, clear, and piercing cry, that may be heard to a very considerable distance, and which, being not unaptly compared to the whoop or yell of the savages when rushing to battle, has conferred upon our bird his peculiar appellation. Other species of the genus possess also the same sonorous cry. When wounded, they attack those who approach them with considerable vigour, so much so as to have been known to dart their sharp and dagger-like bill through the incautious hand held out for their capture. Indeed, according to Dr. Richardson, they have sometimes driven the fowler fairly out of the field.

ILLUSTRATIVE ANECDOTES.

Captain Amidas (the first Englishman who ever set foot in North America) thus graphically describes the clamour of the Whooping Cranes, on his landing on the isle of Wo-

kokou, off the coast of North Carolina, in the month of July: "Such a flock of Cranes (the most part white) arose under us, with such a cry, redoubled by many echoes, as if an army of men had shouted altogether." But though this display of their discordant calls may be amusing, the bustle of their great migrations, and the passage of their mighty armies, fills the mind with wonder.

In the month of December, 1811 (says Mr. Nuttall), while leisurely descending on the bosom of the Mississippi, in one of the trading boats of that period, I had an opportunity of witnessing one of these vast migrations of the Whooping Cranes, assembled by many thousands from all the marshes and impassable swamps of the north and west. The whole continent seemed as if giving up its quota of the species to swell the mighty host. Their flight took place in the night, down the great aerial valley of the river, whose southern course conducted them every instant towards warmer and more hospitable climes. The clangour of these numerous legions passing along, high in air, seemed almost deafening; the confused cry of the vast army continued, with the lengthening procession, and as the vocal call continued nearly throughout the whole night, without intermission, some idea may be formed of the immensity of the numbers now assembled on their annual journey to the regions of the south.

THE BLACK-NECKED STILT.

(*Himantopus nigricollis.*)

THIS curious bird, under the name of Long-legged Avoset, is described by Mr. Wilson in his usual lively and interesting style. He says:—

This species arrives on the sea-coast of New Jersey about the 25th of April, in small, detached flocks, of twenty or thirty together. These sometimes again subdivide into lesser parties; but it rarely happens that a pair is found solitary, as, during the breeding season, they usually associate in small companies. On their first arrival, and, indeed, during the whole of their residence, they inhabit those particular parts of the salt marshes pretty high up towards the land, that are broken into numerous shallow pools, but are not usually overflowed by the tides during the summer. These pools, or ponds, are generally so shallow, that, with their long legs, the Avosets can easily wade them in every direction; and, as they abound with minute shell-fish, and multitudes of aquatic insects and their larvæ, besides the eggs and spawn of others deposited in the soft mud below, these birds find here an abundant supply of food, and are almost continually seen wading about in such places, often up to the breast in water.

In the vicinity of these *bald places*, as they are called by the country people, and at the distance of forty or fifty yards off, among the thick tufts of grass, one of these small

associations, consisting perhaps of six or eight pair, takes up its residence during the breeding season. About the first week in May they begin to construct their nests, which are at first slightly formed of a small quantity of old grass, scarcely sufficient to keep the eggs from the wet marsh. As they lay and sit, however, either dreading the rise of the tides, or for some other purpose, the nest is increased in height, with dry twigs of a shrub very common in the marshes, roots of the salt grass, sea-weed, and various other substances, the whole weighing between two and three pounds. This habit of adding materials to the nest after the female begins sitting is common to almost all other birds that breed in the marshes. The eggs are four in number, of a dark yellowish clay-colour, thickly marked with large blotches of black. These nests are often placed within fifteen or twenty yards of each other; but the greatest harmony seems to prevail among the proprietors.

While the females are sitting, the males are either wading through the ponds, or roaming over the adjoining marshes; but should a person make his appearance, the whole collect together in the air, flying with their long legs extended behind them, keeping up a continual yelping note of *click, click, click*. Their flight is steady, and not in short, sudden jerks, like that of the plover. As they frequently alight on the bare marsh, they drop their wings, stand with their legs half bent, and trembling, as if unable to sustain the burden of their bodies. In this ridiculous posture they

will sometimes stand for several minutes, uttering a curring sound, while, from the corresponding quiverings of their wings and long legs, they seem to balance themselves with great difficulty. This singular manœuvre is, no doubt, intended to induce a belief that they may be easily caught, and so turn the attention of the person, from the pursuit of their nests and young, to themselves.

The Red-necked Avoset practises the very same deception, in the same ludicrous manner, and both alight indiscriminately on the ground or in the water. Both will also occasionally swim for a few feet, when they chance in wading to lose their depth, as I have had several times an opportunity of observing.

The name by which this bird is known on the sea-coast is the Stilt, or Tilt, or Long-Shanks. They are but sparingly dispersed over the marshes, having, as has been already observed, their particular favourite spots, while in large intermediate tracts, there are few or none to be found.

THE AMERICAN, OR RED FLAMINGO.

(*Phœnicopterus ruber.*)

THE Flamingo of America (says Mr. Nuttall) is found chiefly in the tropical regions, from whence it appears to

emigrate in summer, on either side of the equator; in the southern hemisphere, visiting Brazil, Peru, Chili, and Buenos Ayres, on the shores of La Plata. It is also seen in Cayenne (where it is known by the name of Tococo, from the usual sound of its call), and in various islands of the West Indies. They breed in Cuba and the Bahamas, are not unfrequent at certain seasons on the coast of Florida, and sometimes solitary individuals are observed even in the Middle States; but in the Union generally, the species may be considered as rare.

When seen at a distance, such is the brilliancy of their dress, and the elevation at which they stand, that they appear like a troop of soldiers, being arranged alongside of each other, in lines, while on the borders of rivers and estuaries near the sea, they assemble in search of their food, which consists chiefly of small fish, spawn, and aquatic insects.

They collect their prey by plunging in the bill and part of the head; and from time to time trample with their feet, to disturb the water, and raise it from the bottom. While the rest are thus employed in seeking their subsistence, one of them stands sentinel, and, on the first note of alarm, a kind of trumpet-call, he takes to wing, and the whole flock immediately follow.

The Flamingo has the neck and legs in a greater proportion than any other bird. The length from the end of the bill to that of the tail is four feet two or three inches;

but to the end of the claws measures sometimes more than six feet. The bill is four inches and a quarter long; as far as the bend black, but from thence to the base, reddish-yellow; round the base quite to the eye, covered with a flesh-coloured cere.

The plumage deep scarlet in the adult, except the quills, which are black. From the base of the thigh to the claws, measures thirty-two inches, of which the feathered part takes up no more than three.

WILSON'S STORMY PETREL.

(*Thalassidroma Wilsonii.*)

WE commence our series of the *Palmipedes*, or Web-footed birds, with this, which is called Wilson's Stormy Petrel, in honour of Alexander Wilson, the celebrated historian of American birds. It is on his authority that we give the following description and illustrative anecdotes:—

The Stormy Petrel, the least of the whole twenty-four species of its tribe enumerated by ornithologists, and the smallest of all palmated fowls, is found over the whole Atlantic Ocean, from Europe to North America, at all distances from land, and in all weathers, but is particularly numerous near vessels, immediately preceding and during a gale, when flocks of them crowd in her wake, seeming then

more than usually active in picking up various matters from the surface of the water.

The Stormy Petrels, or Mother Carey's Chickens, breed in great numbers on the rocky shores of the Bahama and the Bermuda Islands, and in some places on the coast of East Florida and Cuba. They breed in communities, like the bank swallows, making their nests in the holes and cavities of the rocks above the sea, returning to feed their young only during the night, with the superabundant oily food from their stomachs. At these times they may be heard making a continued clattering sound, like frogs, during the whole night. In the day they are silent, and wander widely over the ocean. This easily accounts for the vast distance they are sometimes seen from land, even in the breeding season. The rapidity of their flight is at least equal to the fleetness of our swallows. Calculating this at the rate of one mile per minute, twelve hours would be sufficient to waft them a distance of seven hundred and twenty miles; but it is probable that the far greater part confine themselves much nearer land during that interesting period.

ILLUSTRATIVE ANECDOTES.

In the month of July, while on a voyage from New Orleans to New York, I saw few or none of these birds in the Gulf of Mexico, although our ship was detained there by calms for twenty days, and carried by currents as far

south as Cape Antonio, the westernmost extremity of Cūba. On entering the Gulf Stream, and passing along the coasts of Florida and the Carolinas, these birds made their appearance in great numbers, and in all weathers, contributing much by their sprightly evolutions of wing to enliven the scene, and affording me every day several hours of amusement. It is indeed an interesting sight to observe these little birds in a gale, coursing over the waves, down the declivities, up the ascents of the foaming surf that threatens to burst over their heads, sweeping along the hollow troughs of the sea as in a sheltered valley, and again mounting with the rising billow, and just above its surface occasionally dropping its feet, which, striking the water, throw it up again with additional force; sometimes leaping, with both legs parallel, on the surface of the roughest waves for several yards at a time. Meanwhile it continues coursing from side to side of the ship's wake, making excursions far and wide, to the right and to the left, now a great way ahead, and now shooting astern for several hundred yards, returning again to the ship as if she were all the while stationary, though perhaps running at the rate of ten knots an hour! But the most singular peculiarity of this bird is its faculty of standing, and even running, on the surface of the water, which it performs with apparent facility. When any greasy matter is thrown overboard, these birds instantly collect around it, and, facing to windward, with their long wings expanded, and their webbed feet patting the water, the lightness of

their bodies and the action of the wind on their wings enable them to do this with ease. In calm weather, they perform the same manœuvre, by keeping their wings just so much in action as to prevent their feet from sinking below the surface. According to Buffon, it is from this singular habit that the whole genus have obtained the name Petrel, from the Apostle Peter, who, as Scripture informs us, also walked on the water.

As these birds often come up immediately under the stern, one can examine their form and plumage with nearly as much accuracy as if they were in the hand. They fly with the wings forming an almost straight, horizontal line with the body, the legs extended behind, and the feet partly seen stretching beyond the tail. Their common note of "*weet, weet,*" is scarcely louder than that of a young duck of a week old, and much resembling it. During the whole of a dark, wet, and boisterous night which I spent on deck, they flew about the after rigging, making a singular hoarse chattering, which in sound resembled the syllables *patrèt tu cuk cuk, tu tu*, laying the accent strongly on the second syllable *tret*. Now and then I conjectured that they alighted on the rigging, making then a lower, curring noise.

Notwithstanding the superstitious fears of the seamen, who dreaded the vengeance of the survivors, I shot fourteen of these birds one calm day, in lat. 33°, eighty or ninety miles off the coast of Carolina, and had the boat lowered to pick them up. These I examined with consider-

able attention, and found the most perfect specimens as follows:—

Length, six inches and three quarters; extent, thirteen inches and a half; bill, black, nostrils, united in a tubular projection, the upper mandible grooved from thence, and overhanging the lower like that of a bird of prey; head, back, and lower parts, brown sooty black; greater wing-coverts, pale brown, minutely tipped with white; sides of the vent, and whole tail-coverts, pure white; wings and tail, deep black, the latter nearly even at the tip, or very slightly forked; in some specimens, two or three of the exterior tail-feathers were white for an inch or so at the root; legs and naked part of the thighs, black; feet, webbed, with the slight rudiments of a hind toe; the membrane of the foot is marked with a spot of straw yellow, and finely serrated along the edges; eyes, black. Male and female differing nothing in colour.

THE PIED OYSTER-CATCHER. (*Hæmatopus ostralegus*.)

THIS singular species (says Wilson) although nowhere numerous, inhabits almost every sea-shore, both on the new and old continent, but is never found inland. It is the only one of its genus hitherto discovered, and from the con-

formation of some of its parts, one might almost be led by fancy to suppose, that it had borrowed the eye of the pheasant, the legs and feet of the bustard, and the bill of the woodpecker.

The Oyster-Catcher frequents the sandy sea-beach of New Jersey, and other parts of our Atlantic coast, in summer, in small parties of two or three pairs together. They are extremely shy, and, except about the season of breeding, will seldom permit a person to approach within gunshot. They walk along the shore in a watchful, stately manner, at times probing it with their long, wedge-like bills, in search of small shell-fish. This appears evident, on examining the hard sands where they usually resort, which are found thickly perforated with oblong holes, two or three inches in depth. The small crabs called fiddlers, that burrow in the mud at the bottom of inlets, are frequently the prey of the Oyster-Catcher; as are muscles, spout fish, and a variety of other shell-fish and sea insects with which those shores abound.

The principal food, however, of this bird, according to European writers, and that from which it derives its name, is the oyster, which it is said to watch for, and snatch suddenly from the shells, whenever it surprises them sufficiently open. In search of these, it is reported that it often frequents the oyster-beds, looking out for the slightest opening through which it may attack its unwary prey. For this purpose the form of its bill seems very fitly cal-

culated. Yet the truth of these accounts is doubted by the inhabitants of Egg Harbor, and other parts of our coast, who positively assert, that it never haunts such places, but confines itself almost solely to the sands; and this opinion I am inclined to believe correct, having myself uniformly found these birds on the smooth beach bordering the ocean, and on the higher, dry, and level sands, just beyond the reach of the summer tides. On this last situation, where the dry flats are thickly interspersed with drifted shells, I have repeatedly found their nests, between the middle and 25th of May. The nest itself is a slight hollow in the sand, containing three eggs, somewhat less than those of a hen, and nearly of the same shape, of a bluish cream-colour, marked with large, roundish spots of black, and others of a fainter tint. In some, the ground cream-colour is destitute of the bluish tint, the blotches larger, and of a deep brown. The young are hatched about the 25th of May, and sometimes earlier, having myself caught them running along the beach about that period. They are at first covered with down of a grayish colour, very much resembling that of the sand, and marked with a streak of brownish black on the back, rump, and neck, the breast being dusky, where, in the old ones, it is black. The bill is at that age slightly bent downwards at the tip, where, like most other young birds, it has a hard protuberance that assists them in breaking the shell; but in a few days afterwards this falls off. These run along the shore with great ease and swiftness.

Latham observes, that the young are said to be hatched in about three weeks; and though they are wild when in flocks, yet are easily brought up tame, if taken young. "I have known them," says he, "to be thus kept for a long time, frequenting the ponds and ditches during the day, attending the ducks and other poultry to shelter of nights, and not unfrequently to come up of themselves as evening approaches."

The female sits on her eggs only during the night, or in remarkably cold and rainy weather; at other times the heat of the sun and of the sand, which is sometimes great, renders incubation unnecessary. But although this is the case, she is not deficient in care or affection. She watches the spot with an attachment, anxiety, and perseverance, that are really surprising, till the time arrives when her little offspring burst their prisons, and follow the guiding voice of their mother. When there is appearance of danger, they squat on the sand, from which they are with difficulty distinguished, while the parents make large circuits around the intruder, alighting sometimes on this hand, sometimes on that, uttering repeated cries, and practising the common affectionate stratagem of counterfeited lameness, to allure him from their young.

ILLUSTRATIVE ANECDOTES.

Some time ago (says Mr. Wilson) I received a stuffed specimen of the Oyster-Catcher, from a gentleman of Boston,

an experienced sportsman, who, nevertheless, was unacquainted with this bird. He informed me, that two very old men to whom it was shown, called it a *Hagdel*. He adds, "It was shot from a flock, which was first discovered on the beach near the entrance of Boston Harbour. On the approach of the gunner, they rose, and instantly formed in line, like a corps of troops, and advanced in perfect order, keeping well dressed. They made a number of circuits in the air previous to being shot at, but wheeled in line; and the man who fired into the flock, observed that all their evolutions were like those of a regularly-organized military company."

The Oyster-Catcher will not only take to the water when wounded, but can also swim and dive well. This fact I can assert from my own observation, the exploits of one of them in this way having nearly cost me my life. On the sea-beach of Cape May, not far from a deep and rapid inlet, I broke the wing of one of these birds, and being without a dog, instantly pursued it towards the inlet, which it made for with great rapidity. We both plunged in nearly at the same instant; but the bird eluded my grasp, and I sunk beyond my depth; it was not until this moment that I recollected having carried in my gun along with me. On rising to the surface, I found the bird had dived, and a strong ebb current was carrying me fast towards the ocean, encumbered with a gun and all my shooting apparatus; I was compelled to relinquish my bird, and to make for the

shore, with considerable mortification, and the total destruction of the contents of my powderhorn. The wounded bird afterwards rose, and swam with great buoyancy out among the breakers.

On the same day, I shot and examined three individuals of this species, two of which measured each eighteen inches in length, and thirty-five inches in extent; the other was somewhat less. The bills varied in length, measuring three inches and three quarters, three and a half, and three and a quarter, thinly compressed at the point, very much like that of the woodpecker tribe, but remarkably narrowed near the base where the nostrils are placed, probably that it may work with more freedom in the sand. This instrument, for two-thirds of its length towards the point, was evidently much worn by digging; its colour, a rich orange-scarlet, somewhat yellowish near the tip; eye, large; orbits, of the same bright scarlet as the bill; irides, brilliant yellow; pupil, small, bluish black; under the eye is a small spot of white, and a large bed of the same on the wing-coverts; head, neck, scapulars, rump, wing-quills, and tail, black; several of the primaries are marked on the outer vanes with a slanting band of white; secondaries, white, part of them tipped with black; the whole lower parts of the body, sides of the rump, tail-coverts, and that portion of the tail which they cover, are pure white; the wings, when shut, cover the whole white plumage of the back and rump; legs and naked part of the thighs, pale red; feet,

three-toed, the outer joined to the middle by a broad and strong membrane, and each bordered with a rough, warty edge; the soles of the feet are defended from the hard sand and shells by a remarkably thick and callous warty skin.

On opening these birds, the smallest of the three was found to be a male; the gullet widened into a kind of crop; the stomach, or gizzard, contained fragments of shell-fish, pieces of crabs, and of the great king-crab, with some dark brown marine insects. The flesh was remarkably firm and muscular; the skull, thick and strong, intended, no doubt, as in the woodpecker tribe, for the security of the brain from the violent concussions it might receive while the bird was engaged in digging. The female and young birds have the back and scapulars of a sooty brownish olive.

THE GREAT HERON. (*Ardea Herodias.*)

THE Great Heron (says Mr. Wilson) is a constant inhabitant of the Atlantic coast, from New York to Florida; in deep snows and severe weather seeking the open springs of the cedar and cypress swamps, and the muddy inlets occasionally covered by the tides. On the higher inland parts of the country, beyond the mountains, they are less numerous; and one which was shot in the upper parts of New

Hampshire, was described to me as a great curiosity. Many of their breeding-places occur in both Carolinas, chiefly in the vicinity of the sea. In the lower parts of New Jersey, they have also their favourite places for building, and rearing their young. These are generally in the gloomy solitudes of the tallest cedar swamps, where, if unmolested, they continue annually to breed for many years. These swamps are from half a mile to a mile in breadth, and sometimes five or six in length, and appear as if they occupied the former channel of some choked-up river, stream, lake, or arm of the sea. The appearance they present to a stranger is singular—a front of tall and perfectly straight trunks, rising to the height of fifty or sixty feet, without a limb, and crowded in every direction, their tops so closely woven together as to shut out the day, spreading the gloom of a perpetual twilight below. On a nearer approach, they are found to rise out of the water, which, from the impregnation of the fallen leaves and roots of the cedars, is of the colour of brandy. Amidst this bottom of congregated springs, the ruins of the former forest lie piled in every state of confusion. The roots, prostrate logs, and, in many places, the water, are covered with green, mantling moss, while an undergrowth of laurel, fifteen or twenty feet high, intersects every opening so completely, as to render a passage through laborious and harassing beyond description; at every step, you either sink to the knees, clamber over fallen timber, squeeze yourself through between the stubborn laurels, or

plunge to the middle in ponds made by the uprooting of large trees, which the green moss concealed from observation. In calm weather, the silence of death reigns in these dreary regions; a few interrupted rays of light shoot across the gloom; and unless for the occasional hollow screams of the Herons, and the melancholy chirping of one or two species of small birds, all is silence, solitude, and desolation. When a breeze rises, at first it sighs mournfully through the tops; but as the gale increases, the tall mast-like cedars wave like fishing-poles, and rubbing against each other, produce a variety of singular noises, that, with the help of a little imagination, resemble shrieks, groans, growling of bears, wolves, and such like comfortable music.

On the tops of the tallest of these cedars the Herons construct their nests, ten or fifteen pair sometimes occupying a particular part of the swamp. The nests are large, formed of sticks, and lined with smaller twigs; each occupies the top of a single tree. The eggs are generally four, of an oblong, pointed form, larger than those of a hen, and of a light greenish blue, without any spots. The young are produced about the middle of May, and remain on the trees until they are full as heavy as the old ones, being extremely fat, before they are able to fly. They breed but once in the season. If disturbed in their breeding-place, the old birds fly occasionally over the spot, sometimes honking like a goose, sometimes uttering a coarse, hollow, grunting noise, like that of a hog, but much louder.

The Great Heron is said to be fat at the full moon, and lean at its decrease; this might be accounted for by the fact of their fishing regularly by moonlight through the greater part of the night, as well as during the day; but the observation is not universal, for at such times I have found some lean, as well as others fat. The young are said to be excellent for the table, and even the old birds, when in good order, and properly cooked, are esteemed by many.

The principal food of the Great Heron is fish, for which he watches with the most unwearied patience, and seizes them with surprising dexterity. At the edge of the river, pond, or sea-shore, he stands fixed and motionless, sometimes for hours together. But his stroke is quick as thought, and sure as fate, to the first luckless fish that approaches within his reach; these he sometimes beats to death, and always swallows head foremost, such being their uniform position in the stomach. He is also an excellent mouser, and of great service to our meadows, in destroying the short-tailed or meadow mouse, so injurious to the banks. He also feeds eagerly on grasshoppers, various winged insects, particularly dragon flies, which he is very expert at striking, and also eats the seeds of that species of nymphæ usually called spatterdocks, so abundant along our fresh-water ponds and rivers.

The Heron has great powers of wing, flying sometimes very high, and to a great distance; his neck doubled, his head drawn in, and his long legs stretched out in a right

line behind him, appearing like a tail, and, probably, serving the same rudder-like office. When he leaves the sea-coast, and traces, on wing, the courses of the creeks or rivers upwards, he is said to prognosticate rain; when downwards, dry weather. He is most jealously vigilant and watchful of man, so that those who wish to succeed in shooting the Heron, must approach him entirely unseen, and by stratagem. The same inducements, however, for his destruction, do not prevail here as in Europe. Our sea-shores and rivers are free to all for the amusement of fishing. Luxury has not yet constructed her thousands of fish-ponds, and surrounded them with steel traps, spring guns and Heron snares. In our vast fens, meadows, and sea-marshes, this stately bird roams at pleasure, feasting on the never-failing magazines of frogs, fish, seeds, and insects, with which they abound, and of which he, probably, considers himself the sole lord and proprietor. I have several times seen the bald eagle attack and tease the Great Heron; but whether for sport, or to make him disgorge his fish, I am uncertain.

The Common Heron of Europe very much resembles the present, which might, as usual, have probably been ranked as the original stock, of which the present was a mere degenerated species, were it not that the American is greatly superior, in size and weight, to the European species; the former measuring four feet four inches, and weighing upwards of seven pounds; the latter, three feet three inches, and rarely weighing more than four pounds. Yet, with the

exception of size, and the rust-coloured thighs of the present, they are extremely alike. The Common Heron of Europe, however, is not an inhabitant of the United States.

The Great Heron does not receive his full plumage during the first season, nor until the summer of the second. In the first season, the young birds are entirely destitute of the white plumage of the crown, and the long, pointed feathers of the back, shoulders, and breast. In this dress I have frequently shot them in autumn; but in the third year, both males and females have assumed their complete dress, and, contrary to all the European accounts which I have met with, both are then so nearly alike in colour and markings, as scarcely to be distinguished from each other, both having the long, flowing crest, and all the ornamental, white, pointed plumage of the back and breast. Indeed, this sameness in the plumage of the males and females, when arrived at their perfect state, is a characteristic of the whole of the genus with which I am acquainted. Whether it be different with those of Europe, or that the young and imperfect birds have been hitherto mistaken for females, I will not pretend to say, though I think the latter conjecture highly probable, as the night raven has been known in Europe for several centuries, and yet, in all their accounts, the sameness of the colours and plumage of the male and female of that bird is nowhere mentioned; on the contrary, the young, or yearling bird, has been universally described as the female.

ILLUSTRATIVE ANECDOTES.

“The Heron,” says an English writer, “is a very great devourer of fish, and does more mischief in a pond than an otter. People who have kept Herons, have had the curiosity to number the fish they feed them with into a tub of water, and counting them again afterwards, it has been found that they will eat up fifty moderate dace and roaches in a day. It has been found, that in carp-ponds visited by this bird, one Heron will eat up a thousand store carp in a year; and will hunt them so close, as to let very few escape. The readiest method of destroying this mischievous bird, is by fishing for him in the manner of pike, with a baited hook. When the haunt of the Heron is found out, three or four small roach, or dace, are to be procured, and each of them is to be baited on a wire, with a strong hook at the end, entering the wire just at the gills, and letting it run just under the skin to the tail; the fish will live in this manner for five or six days, which is a very essential thing; for if it be dead, the Heron will not touch it. A strong line is then to be prepared of silk and wire twisted together, and is to be about two yards long; tie this to the wire that holds the hook, and to the other end of it there is to be tied a stone of about a pound weight; let three or four of these baits be sunk in different shallow parts of the pond, and, in a night or two’s time, the Heron will not fail to be taken with one or other of them.”

THE WOOD IBIS. (*Tantalus loculator.*)

THE Wood Ibis (says Mr. Wilson) inhabits the lower parts of Louisiana, Carolina, and Georgia; is very common in Florida, and extends as far south as Cayenne, Brazil, and various parts of South America. In the United States it is migratory; but has never, to my knowledge, been found to the north of Virginia. Its favourite haunts are watery savannas and inland swamps, where it feeds on fish and reptiles. The French inhabitants of Louisiana esteem it good eating.

With the particular manners of this species I am not personally acquainted; but the following characteristic traits are given of it by Mr. William Bartram, who had the best opportunities of noting them:—

“This solitary bird,” he observes, “does not associate in flocks, but is generally seen alone, commonly near the banks of great rivers, in vast marshes or meadows, especially such as are covered by inundations, and also in the vast, deserted rice plantations; he stands alone on the topmost limb of tall, dead cypress-trees, his neck contracted or drawn in upon his shoulders, and his beak resting, like a long scythe, upon his breast; in this pensive posture, and solitary situation, they look extremely grave, sorrowful, and melancholy, as if in the deepest thought. They are never seen on the sea-coast, and yet are never found at a great distance from it. They feed on serpents, young alligators, frogs, and other reptiles.”

THE SNOW GOOSE. (*Anas hyperborea.*)

THIS species, called on the sea-coast the Red Goose, arrives in the river Delaware, from the north, early in November, sometimes in considerable flocks, and is extremely noisy their notes being shriller and more squeaking than those of the Canada, or Common Wild Goose. On their first arrival they make but a short stay, proceeding, as the depth of winter approaches, farther to the south; but from the middle of February, until the breaking up of the ice in March, they are frequently numerous along both shores of the Delaware, about and below Reedy Island, particularly near Old Duck Creek, in the state of Delaware. They feed on the roots of the reeds there, tearing them up from the marshes like hogs. Their flesh, like most others of their tribe, that feed on vegetables, is excellent.

The Snow Goose is two feet eight inches in length, and five feet in extent; the bill is three inches in length, remarkably thick at the base, and rising high in the forehead, but becomes small and compressed at the extremity, where each mandible is furnished with a whitish rounding nail; the colour of the bill is a purplish carmine; the edges of the two mandibles separate from each other, in a singular manner, for their whole length, and this gibbosity is occupied by dentated rows, resembling teeth, these, and the parts adjoining, being of a blackish colour; the whole plumage is of a snowy whiteness, with the exception, first,

of the fore part of the head all round as far as the eyes, which is of a yellowish rust-colour, intermixed with white; and, second, the nine exterior quill-feathers, which are black, shafted with white, and white at the root; the covers of these last, and also the bastard wing, are sometimes of a pale ash-colour; the legs and feet, of the same purplish carmine as the bill; iris, dark hazel; the tail is rounded and consists of sixteen feathers; that, and the wings, when shut, nearly of a length.

The bill of this bird is singularly curious; the edges of the upper and lower gibbosities have each twenty-three indentations, or strong teeth, on each side; the inside, or concavity of the upper mandible, has also seven lateral rows of strong, projecting teeth; and the tongue, which is horny at the extremity, is armed on each side with thirteen long and sharp, bony teeth, placed like those of a saw, with their points directed backwards; the tongue turned up, and viewed on its lower side, looks very much like a human finger with its nail. This conformation of the mandibles, exposing two rows of strong teeth, has, probably, given rise to the epithet Laughing, bestowed on one of its varieties, though it might, with as much propriety, have been named the Grinning Goose.

The specimen from which the above description was taken, was shot on the Delaware, below Philadelphia, on the 15th of February, and on dissection proved to be a male; the windpipe had no labyrinth, but, for an inch or two

before its divarication into the lungs, was inflexible, not extensile, like the rest, and rather wider in diameter. The gullet had an expansion before entering the stomach, which last was remarkably strong, the two great grinding muscles being nearly five inches in diameter. The stomach was filled with fragments of the roots of reeds, and fine sand. The intestines measured eight feet in length, and were not remarkably thick. The liver was small.

ILLUSTRATIVE ANECDOTES.

Latham observes that this species is very numerous at Hudson's Bay, that they visit Severn river in May, and stay a fortnight, but go farther north to breed; they return to Severn Fort the beginning of September, and stay till the middle of October, when they depart for the south, and are observed to be attended by their young, in flocks innumerable. They seem to occupy also the western side of America, as they were seen at Aoonalashka, as well as Kamtschatka. White Brant, with black tips to their wings, were also shot by Captains Lewis and Clark's exploring party, near the mouth of the Columbia river, which were probably the same as the present species. Mr. Pennant says, "They are taken by the Siberians in nets, under which they are decoyed by a person covered with a white skin, and crawling on all fours; when, others driving them, these stupid birds, mistaking him for their leader, follow him, when they are entangled in the nets, or led into a kind of pond made for the pur-

pose!" We might here, with propriety, add—*This wants confirmation.*

THE WANDERING ALBATROSS. (*Diomedea exulans.*)

THIS bird is found in the Atlantic Ocean, from Southern Africa to the American coast, as well as in the Pacific. There are three species of the genus, viz: the Albatross of China; the Yellow and Black-beaked Albatross, and the Common or Wandering Albatross.

The Common Albatross is the species which is most frequently met with in the seas of Southern Africa. It is the largest sea-bird known. On account of its size and colour it is often called the Sheep of the Cape,—a name under which it is found in several voyages. The top of the head is a ruddy gray; the rest of the plumage is white, with the exception of several transverse black bands on the back, and a few of the wing-feathers. The feet and membrane are of a deep flesh-colour; the bill a pale yellow.

The weight of this bird has been variously stated, at from twelve to twenty-eight pounds; and a similar difference appears to exist in authors, with respect to the distance between the extremity of the extended wings. Forster says about ten feet,—Parkins, eleven feet seven inches,—Cook, eleven feet; another says twelve feet; a specimen in the

Leverian museum measured thirteen feet; and Ives (p. 5), mentions one, shot off the Cape of Good Hope, which measured seventeen feet and a half from wing to wing. Dr. Arnott, in his *Physics*, says,—“How powerful must be the wing-muscles of birds, which sustain themselves in the sky for hours together! The Great Albatross, with wings extending fourteen feet or more, is seen in the stormy solitude of the Southern Ocean, accompanying ships for whole days without ever resting on the waves!”

We can, from this circumstance, readily understand the extensive range in which the Albatross is found; not being confined, as Buffon imagined, to the Southern Ocean, but being equally abundant in the northern latitudes, though Forster says, he never observed it within the tropics. These birds are seen in immense flocks about Behring's Straits and Kamtschatka, about the end of June, frequenting chiefly the inner sea, the Kurile Islands, and the Bay of Pentshinensi, whereas scarcely a straggler is to be seen on the eastern or American shore. They seem to be attracted thither by vast shoals of fish, whose migratory movements the albatrosses follow. On their first appearing in those seas, they are very lean, but, from finding abundance of food, they soon become fat. Their voracity is so great, that they will often swallow a salmon of four or five pounds weight, and then, being half choked, and unable, in consequence, to move, the natives easily knock them down with a stick.

They do not, however, confine themselves to fish, but will prey on any other sea-animal; and Cook's sailors caught them with a line and a hook. The Kamtschadales take them by fastening a cord to a large hook, baited with a whole fish, which the birds greedily seize. Their usual food, however, seems rather to be fish-spawn and small *molluscæ*. M. Querhoent never found in their stomachs anything besides a thick mucilage.

Notwithstanding their strength, they never venture to attack other sea-birds, but are, on the contrary, attacked by the gulls. "Several large grey gulls," says Cook, "that were pursuing a white albatross, afforded us a diverting spectacle; they overtook it, notwithstanding the length of its wings, and they tried to attack it under the belly, that part being probably defenceless; the albatross had now no means of escaping, but by dipping its body into the water; its formidable bill seemed to repel them."

Their flesh is tough and dry; but the Kamtschadales take them for the sake of their entrails, which they blow and use as buoys for their nets. They employ the wing-bones also, which Edwards says are as long as their whole body, for tobacco pipes.

THE SWAN. (*Anas Cygnus.*)

So much difference is there between this bird when on land and in the water, that it is hardly to be supposed the same; for in the latter, no bird can possibly exceed it for beauty and majestic appearance. When it ascends from its favourite element, its motions are awkward, and its neck is stretched forward with an air of stupidity; it has, indeed, the air of being only a larger sort of goose; but when seen smoothly gliding along the water, displaying a thousand graceful attitudes, and moving at pleasure without the smallest apparent effort, there is not a more beautiful figure in all nature. In its form, we find no broken or harsh lines; in its motions, nothing constrained or abrupt; but the roundest contours, and the easiest transitions; the eye wanders over the whole with unalloyed pleasure, and with every change of position every part assumes a new grace. It will swim faster than a man can walk.

This bird has long been rendered domestic; and it is now a doubt whether there be any of the tame kind in a state of nature. The colour of the tame Swan is entirely white, and it generally weighs full twenty pounds. Under the feathers is a very thick soft down, which is made an article of commerce, for purposes of both use and ornament. The windpipe sinks down into the lungs in the ordinary manner; and it is the most silent of all the feathered tribes; it can do nothing more than hiss, which it does on receiving

any provocation. In these respects it is very different from the wild or Whistling Swan.

This beautiful bird is as delicate in its appetites as it is elegant in its form. Its chief food is corn, bread, herbs growing in the water, and roots and seeds, which are found near the margin. At the time of incubation it prepares a nest in some retired part of the bank, and chiefly where there is an inlet in the stream. This is composed of water plants, long grass, and sticks: and the male and female assist in forming it with great assiduity. The Swan lays seven or eight eggs, white, one every other day, much larger than those of a goose, with a hard, and sometimes a tuberos shell. It sits six weeks before its young are excluded; which are ash-coloured when they first leave the shell, and for some months after. It is not a little dangerous to approach the old ones, when their little family are feeding round them. Their fears, as well as their pride, seem to take the alarm, and when in danger, the old birds carry off the young ones on their back. A female has been known to attack and drown a fox, which was swimming towards her nest; they are able to throw down and trample on youths of fifteen or sixteen; and an old Swan can break the leg of a man with a single stroke of its wing.

THE CINEREOUS COOT. (*Fulica Americana.*)

THIS species makes its appearance in Pennsylvania about the first of October. Among the muddy flats and islands of the river Delaware, which are periodically overflowed, and which are overgrown with the reed, or wild oats, and rushes, the Coots are found. They are not numerous, and are seldom seen, except their places of resort be covered with water; in that case they are generally found sitting on the fallen reed, waiting for the ebbing of the tide, which will enable them to feed. Their food consists of various aquatic plants, seeds, insects, and, it is said, small fish.

The Coot has an aversion to take wing, and can seldom be sprung in its retreat at low water; for, although it walks rather awkwardly, yet it contrives to skulk through the grass and reeds with great speed, the compressed form of its body, like that of the rail genus, being well adapted to the purpose. It swims remarkably well, and, when wounded, will dive like a duck. When closely pursued in the water, it generally takes to the shore, rising with apparent reluctance, like a wounded duck, and fluttering along the surface, with its feet pattering on the water. It is known in Pennsylvania by the name of the Mud-Hen.

I have never yet discovered that this species breeds with us (says Wilson), though it is highly probable that some few may occupy the marshes of the interior, in the vicinity of the ponds and lakes, for this purpose; those retired situ-

ations being well adapted to the hatching and rearing of their young. In the Southern States, particularly South Carolina, they are well known; but the Floridas appear to be their principal rendezvous for the business of incubation. "The Coot," says William Bartram, "is a native of North America, from Pennsylvania to Florida. They inhabit large rivers, fresh-water inlets or bays, lagoons, &c., where they swim and feed amongst the reeds and grass of the shores; particularly in the river St. Juan, in East Florida; where they are found in immense flocks. They are loquacious and noisy, talking to one another night and day; are constantly on the water, the broad, lobated membranes on their toes enabling them to swim and dive like ducks."

The Coot inhabits the shores of Sweden and Norway; appears in the spring, and very rarely visits the lakes or moors. Is found in Russia, China, Persia, Greenland, and Siberia. It is common in France, particularly in Lorraine.

"This species is met with in Great Britain, at all seasons of the year; and it is generally believed, that it does not migrate to other countries, but changes its stations, and removes in the autumn from the lesser pools, or loughs, where the young have been reared, to the larger lakes, where flocks assemble in the winter. The female commonly builds her nest in a bunch of rushes, surrounded by the water; it is composed of a great quantity of coarse dried weeds, well matted together, and lined within with softer and finer grasses; she lays from twelve to fifteen eggs at a

time, and commonly hatches twice in a season; her eggs are about the size of those of a pullet, and are of a pale brownish white colour, sprinkled with numerous small, dark, spots, which at the thicker end, seem as if they had run into each other, and formed bigger blotches.

“As soon as the young quit the shell, they plunge into the water, dive, and swim about with great ease; but they still gather together about the mother, and take shelter under her wings, and do not entirely leave her for some time. They are at first covered with sooty coloured down, and are of a shapeless appearance; while they are in this state, and before they have learned by experience to shun danger, the kite, moor buzzard, and others of the hawk tribe, make dreadful havoc among them.”

The Cinereous Coot is sixteen inches in length, and twenty-eight in extent; bill, one inch and a half long, white, the upper mandible slightly notched near the tip, and marked across with a band of chestnut, the lower mandible marked on each side with a squarish spot of the like colour, edged on the lower part with bright yellow, or gamboge, thence to the tip, pale horn colour; membrane of the forehead, dark chestnut brown; irides, cornelian red; beneath the eye, in most specimens, a whitish spot; the head and neck are of a deep shining black, resembling satin; back and scapulars, dirty greenish olive; shoulders, breast, and wing-coverts, slate blue; the under parts are hoary; vent black; beneath the tail, pure white; primaries

and secondaries, slate, the former tipped with black, the latter with white, which does not appear when the wing is closed; outer edges of the wings, white; legs and toes yellowish green, the scalloped membrane of the latter, lead colour; middle toe, including the claw, three inches and three-quarters long.

ILLUSTRATIVE ANECDOTES.

Buffon describes the mode of shooting Coots in France, particularly in Lorraine, on the great pools of Tiaucourt, and of Indre; hence we are led to suppose, that they are esteemed as an article of food. But with us, who are enabled, by the abundance and variety of game, to indulge in greater luxuries in that season when our Coots visit us, they are considered as of no account, and are seldom eaten.

The European ornithologists represent the membrane on the forehead of the Coot as white, except in the breeding season, when it is said to change its colour to pale red. This circumstance would induce one to suppose, that our Coot is a different species from the European, which I have never had the satisfaction to behold; and, indeed, I am much of that opinion.

It is a very rare occurrence, that the Coot is seen in the vicinity of Philadelphia in the spring or summer. The 19th of March, 1814, I had the satisfaction of being presented with one, a female, which was shot in the Schuylkill, at Gray's Ferry. I could see no difference in its plumage

and markings, from those of the full-grown male, except the head and neck not being of so deep a black. The membrane on the forehead was not more than half the size of that of the female specimen, described above, and it was of the same colour, viz., dark chestnut. All the birds which I have ever seen, had this appendage of the same colour.

In Lewis and Clark's history of their expedition, mention is made of a bird which is common on the Columbia; is said to be very noisy, to have a sharp, shrill whistle, and to associate in large flocks; it is called the Black Duck. This is doubtless a species of Coot, but whether or not different from ours, cannot be ascertained. How much is it to be regretted, that, in an expedition of discovery, planned and fitted out by an enlightened government, furnished with every means for safety, subsistence, and research, not one naturalist, not one draughtsman, should have been sent, to observe and perpetuate the infinite variety of natural productions, many of which are entirely unknown to the community of science, which that extensive tour must have revealed!

THE SUMMER, or WOOD DUCK. (*Anas sponsa*.)

THIS most beautiful of Ducks (says Nuttall) seems to be dressed in a studied attire, to which the addition of a flow-

ing crest adds a finish of peculiar elegance; and hence Linnæus has dignified the species with the title of *Sponsa*, or the Bride. This splendid bird is peculiar to America, but extends its residence from the cold regions of Hudson's Bay, in the 54th parallel, to Mexico and the Antilles. Throughout a great part of this vast space, or at least as far south as Florida and the Mississippi territory, the Summer Duck is known to breed. In the interior they are also found in the state of Missouri, and along the woody borders and still streams which flow into most of the great north-western lakes of the St. Lawrence. The Summer Duck, so called from its constant residence in the United States, has indeed but little predilection for the sea-coast, its favourite haunts being the solitary, deep, and still waters, ponds, woody lakes, and the mill-dams in the interior, making its nest often in decayed and hollow trees impending over the water.

Though many migrate probably to the shores of the Mexican Gulf, numbers pass the winter in the states south of Virginia. Early in February they are seen associated by pairs on the inundated banks of the Alabama, and are frequent at the same season in the waters of West Florida. In Pennsylvania they usually nest late in April or early in May, choosing the hollow of some broken or decayed tree, and sometimes even constructing a rude nest of sticks in the forks of branches. The eggs, twelve or thirteen, are yellowish-white, rather less than those of the domestic hen, and

they are usually covered with down, probably plucked from the breast of the parent. The same tree is sometimes occupied, by the same pair, for several successive years, in the breeding season. The young, when hatched, are carried down in the bill of the female, and afterwards conducted by her to the nearest water. To these places, when once selected, if not disturbed, they sometimes show a strong predilection, and are not easily induced to forsake the premises, however invaded by noise and bustle. While the female is sitting, the male is usually perched on some adjoining limb of the same tree, keeping watch for their common safety. The species is scarcely ever gregarious, they are only seen in pairs or by families. The common note of the drake is *peet, peet*; but when on his post as sentinel, on espying danger, he makes a sort of crowing noise, like *'hoo eek, 'hoo eek*.

The food of the Wood Duck consists principally of acorns, the seeds of aquatic plants, such as the Wild Oat, *Ruppia*, &c., and insects, which inhabit in or near waters; and I have seen a fine male whose stomach was wholly filled with a mass of the small coleoptera, called *Donatias*, which are seen so nimbly flying over or resting on the leaves of the pond lily; they are therefore very alert in quest of their prey, or they could never capture these wary insects. They are not uncommon in the markets of the Eastern and Middle States, and are justly esteemed as food.

The Wood Duck has sometimes been tamed, and soon

becomes familiar. They have even been so far domesticated as to run about at large in the barn-yard like ordinary fowls. In France they have also been acclimated and tamed, and have bred in this condition.

ILLUSTRATIVE ANECDOTES.

The Summer Duck is equally well known in Mexico and many of the West India islands. During the whole of our winters, they are occasionally seen in the states south of the Potomac. On the 10th of January (says Wilson), I met with two on a creek near Petersburg, in Virginia. In the more northern districts, however, they are migratory. In Pennsylvania, the female usually begins to lay late in April or early in May. Instances have been known where the nest was constructed of a few sticks laid in a fork of the branches; usually, however, the inside of a hollow tree is selected for this purpose.

On the 18th of May I visited a tree containing the nest of a Summer Duck, on the banks of Tuckahoe river, New Jersey. It was an old, grotesque white oak, whose top had been torn off by a storm. It stood on the declivity of the bank, about twenty yards from the water. In this hollow and broken top, and about six feet down, on the soft, decayed wood, lay thirteen eggs, snugly covered with down, doubtless taken from the breast of the bird. These eggs were of an exact oval shape, less than those of a hen the surface exceedingly fine grained, and of the highest pish,

and slightly yellowish, greatly resembling old, polished ivory. The egg measured two inches and an eighth by one inch and a half. On breaking one of them, the young bird was found to be nearly hatched, but dead, as neither of the parents had been observed about the tree during the three or four days preceding, and were conjectured to have been shot.

This tree had been occupied, probably by the same pair, for four successive years, in breeding time; the person who gave me the information, and whose house was within twenty or thirty yards of the tree, said that he had seen the female, the spring preceding, carry down thirteen young, one by one, in less than ten minutes. She caught them in her bill by the wing or back of the neck; and landed them safely at the foot of the tree, whence she afterwards led them to the water.

Under this same tree, at the time I visited it, a large sloop lay on the stocks, nearly finished; the deck was not more than twelve feet distant from the nest, yet notwithstanding the presence and noise of the workmen, the Ducks would not abandon their old breeding place, but continued to pass out and in, as if no person had been near. The male usually perched on an adjoining limb, and kept watch while the female was laying, and also often while she was sitting. A tame goose had chosen a hollow space at the root of the same tree, to lay and hatch her young in.

The Summer Duck seldom flies in flocks of more than three or four individuals together, and most commonly in pairs, or singly. Their flesh is inferior to that of the blue-winged teal. They are frequent in the markets of Philadelphia.

Among other gaudy feathers with which the Indians ornament the calumet or pipe of peace, the skin of the head and neck of the Summer Duck is frequently seen covering the stem.

This beautiful bird has often been tamed, and soon becomes so familiar as to permit one to stroke its back with the hand. I have seen individuals so tamed, in various parts of the Union. Captain Boyer, collector of the port of Havre-de-Grace, informs me, that, about forty years ago, a Mr. Nathan Nicols, who lived on the west side of Gunpowder Creek, had a whole yard swarming with Summer Ducks, which he had tamed and completely domesticated, so that they bred and were as familiar as any other tame fowls; that he (Captain Boyer) himself saw them in that state, but does not know what became of them. Latham says, that they are often kept in European menageries, and will breed there.

THE COMMON DUCK, or MALLARD. (*Anas domestica*.)

THE Mallard, or original of our domestic Duck, like so many other species (says Mr. Nuttall) is common to most parts of the northern hemisphere. As a bird of passage, in spring and autumn, it is seen in every part of the United States, and indeed inhabits more or less the whole continent, from the Gulf of Mexico to the 68th parallel in the fur countries of the Canadian wilderness. In Europe it is met with everywhere, up to the dreary climates of Greenland, where many even pass the greater part of the winter. They breed in the inland woody districts of the fur countries, and more or less through all the intermediate space as far south as Pennsylvania. In England also, as well as in Sweden, Denmark, Germany, and all parts of the vast dominions of Russia, no less than Arctic Europe, and the Aleutian Islands in the north Pacific, the Wild Duck is known to breed. They nest commonly on the borders of rivers and lakes, sometimes at a considerable distance from water, amongst reeds, grass, or in fields and copses, according to the convenience of the locality, and occasionally even upon trees impending over waters. For its nest it scrapes together a small quantity of such dry weeds as happen to be contiguous and lays from ten to eighteen eggs of a bluish white. At the time of incubation, the female plucks

the down from her breast to line the nest, and frequently covers the eggs when she leaves them.

ILLUSTRATIVE ANECDOTES.

The Duck, like other birds whose young ones run as soon as they are hatched, generally deposits her eggs on the ground; but there are some exceptions to this rule. Mr. Selby says: "Such an instance once occurred within my knowledge, and near my own residence, where a Wild Duck laid her eggs in the old nest of a crow, at least thirty feet from the ground. At this elevation she hatched her young; and as none of them were found dead beneath the tree, it is presumed she carried them safely to the ground in her bill, a mode of conveyance known to be frequently adopted by the Eider Duck." Montagu says, "We have been assured by a person of undoubted veracity that a half domesticated Duck made a nest in Rumford Tower, hatched her young, and brought them down in safety to a piece of water at a considerable distance. Others have been known to breed in trees; and we recollect the nest of this bird being found in the head of an old pollard willow, impending the water, from whence the young might readily drop unhurt into their natural element. Mr. Tunstall mentions one, at Etchingham, in Sussex, which was found sitting upon nine eggs, on an oak-tree, twenty-five feet from the ground: and the author of the 'Rural Sports' records an instance of one taking possession of the nest of a hawk in a large oak. To

these we can add, upon the testimony of a gentleman of the strictest veracity, that out of a large flock of half-domesticated Ducks, one deposited her eggs in the principal fork of a large tree near his house. Eggs, ten to fourteen, of a bluish-white; the female, when she quits the nest for food, covers them with down and other substances.

THE CANVASS-BACK DUCK. (*Anas valisineria.*)

THIS celebrated American species (says Mr. Wilson), as far as can be judged from the best figures and descriptions of foreign birds, is altogether unknown in Europe. It approaches nearest to the pochard of England, but differs from that bird in being superior in size and weight, in the greater magnitude of its bill, and the general whiteness of its plumage. A short comparison of the two will elucidate this point: The Canvass-Back measures two feet in length by three feet in extent, and, when in the best order, weighs three pounds and upwards. The pochard, according to Latham and Bewick, measures nineteen inches in length, and thirty in extent, and weighs one pound twelve or thirteen ounces. The latter writer says of the pochard, "The plumage, above and below, is wholly covered with prettily-freckled, slender, dusky threads, disposed transversely in

close-set, zigzag lines, on a pale ground, more or less shaded off with ash," — a description much more applicable to the red-head, which, very probably, is the species meant.

In the figure of the pochard given by Mr. Bewick, who is generally correct, the bill agrees very well with that of our red-head; but is scarcely half the size and thickness of that of the Canvass-Back; and the figure in the *Planches Enluminees* corresponds, in that respect, with Bewick's. In short, either these writers are egregiously erroneous in their figures and descriptions, or the present Duck was altogether unknown to them. Considering the latter supposition the more probable of the two, I have designated this as a new species, and shall proceed to detail some particulars of its history.

The Canvass-Back Duck arrives in the United States from the north about the middle of October; a few descend to the Hudson and Delaware, but the great body of these birds resort to the numerous rivers belonging to and in the neighbourhood of the Chesapeake Bay, particularly the Susquehanna, the Patapsco, Potomac, and James rivers, which appear to be their general winter rendezvous. Beyond this, to the south, I can find no certain accounts of them. At the Susquehanna, they are called Canvass-Backs; on the Potomac, White-Backs; and on James river, Sheldrakes. They are seldom found at a great distance up any of these rivers, or even in the salt-water bay; but in that particular part of tide water where a certain grass-like plant

grows, on the roots of which they feed. This plant, which is said to be a species of *valisineria*, grows on fresh-water shoals of from seven to nine feet (but never where these are occasionally dry), in long, narrow, grass-like blades, of four or five feet in length; the root is white, and has some resemblance to small celery. This grass is in many places so thick that a boat can with difficulty be rowed through it, it so impedes the oars. The shores are lined with large quantities of it, torn up by the Ducks, and drifted up by the winds, lying, like hay, in windrows.

Wherever this plant grows in abundance, the Canvass-Backs may be expected, either to pay occasional visits, or to make it their regular residence during the winter. It occurs in some parts of the Hudson; in the Delaware, near Gloucester, a few miles below Philadelphia; and in most of the rivers that fall into the Chesapeake, to each of which particular places these Ducks resort; while, in waters unprovided with this nutritive plant, they are altogether unknown.

On the first arrival of these birds in the Susquehanna, near Havre-de-Grace, they are generally lean; but such is the abundance of their favourite food that, towards the beginning of November, they are in pretty good order. They are excellent divers, and swim with great speed and agility. They sometimes assemble in such multitudes as to cover several acres of the river, and when they rise suddenly, produce a noise resembling thunder. They float

about these shoals, diving, and tearing up the grass by the roots, which is the only part they eat. They are extremely shy, and can rarely be approached, unless by stratagem. When wounded in the wing, they dive to such prodigious distances, and with such rapidity, continuing it so perseveringly, and with such cunning and active vigour, as almost always to render the pursuit hopeless.

From the great demand for these Ducks, and the high price they uniformly bring in market, various modes are practised to get within gunshot of them. The most successful way is said to be decoying them to the shore by means of a dog, while the gunner lies closely concealed in a proper situation. The dog, if properly trained, plays backwards and forwards along the margin of the water; and the Ducks, observing his manœuvres, enticed perhaps by curiosity, gradually approach the shore, until they are sometimes within twenty or thirty yards of the spot where the gunner lies concealed, and from which he rakes them, first on the water, and then as they rise. This method is called *calling them in*. If the Ducks seem difficult to decoy, any glaring object, such as a red handkerchief, is fixed round the dog's middle, or to his tail; and this rarely fails to attract them. Sometimes, by moonlight, the sportsman directs his skiff towards a flock whose position he had previously ascertained, keeping within the projecting shadow of some wood, bank, or headland, and paddles along so silently and imperceptibly as often to approach within fifteen

or twenty yards of a flock of many thousands, among whom he generally makes great slaughter.

Many other stratagems are practised, and, indeed, every plan that the ingenuity of the experienced sportsman can suggest, to approach within gunshot of these birds; but, of all the modes pursued, none intimidate them so much as shooting them by night; and they soon abandon the place where they have been thus repeatedly shot at. During the day, they are dispersed about; but towards evening, collect in large flocks, and come into the mouths of creeks, where they often ride as at anchor, with their head under their wing, asleep, there being always sentinels awake, ready to raise an alarm on the least appearance of danger. Even when feeding and diving in small parties, the whole never go down at one time, but some are still left above on the look-out.

When the winter sets in severely, and the river is frozen, the Canvass-Backs retreat to its confluence with the bay, occasionally frequenting air-holes in the ice, which are sometimes made for the purpose, immediately above their favourite grass, to entice them within gunshot of the hut or bush which is usually fixed at a proper distance, and where the gunner lies concealed, ready to take advantage of their listless.

A Mr. Hill, who lives near James river, at a place called Herring Creek, informs me, that, one severe winter, he and another person broke a hole in the ice, about twenty by

forty feet, immediately over a shoal of grass, and took their stand on the shore in a hut of brush, each having three guns well loaded with large shot. The Ducks, which were flying up and down the river, in great extremity, soon crowded to this place, so that the whole open space was not only covered with them, but vast numbers stood on the ice around it. They had three rounds, firing both at once, and picked up eighty-eight Canvass-Backs, and might have collected more, had they been able to get to the extremity of the ice after the wounded ones.

In the severe winter of 1779-80, the grass, on the roots of which these birds feed, was almost wholly destroyed in James river. In the month of January, the wind continued to blow from W. N. W. for twenty-one days, which caused such low tides in the river, that the grass froze to the ice everywhere; and, a thaw coming on suddenly, the whole was raised by the roots, and carried off by the freshet. The next winter, a few of these Ducks were seen, but they soon went away again; and, for many years after, they continued to be scarce; and, even to the present day, in the opinion of my informant, have never been so plenty as before.

The Canvass-Back, in the rich juicy tenderness of its flesh, and its delicacy of flavour, stands unrivalled by the whole of its tribe in this or perhaps in any other quarter of the world. Those killed in the waters of the Chesapeake are generally esteemed superior to all others doubtless from the great abundance of their favourite food which these

ivers produce. At our public dinners, hotels, and particular entertainments, the Canvass-Backs are universal favourites. They not only grace but dignify the table, and their very name conveys to the imagination of the eager epicure the most comfortable and exhilarating ideas. Hence, on such occasions, it has not been uncommon to pay from one to three dollars a pair for these Ducks; and, indeed, at such times, if they can, they must be had, whatever may be the price.

The Canvass-Back will feed readily on grain, especially wheat, and may be decoyed to particular places by baiting them with that grain for several successive days. Some few years since, a vessel loaded with wheat was wrecked near the entrance of Great Egg Harbor, in the autumn, and went to pieces. The wheat floated out in vast quantities, and the whole surface of the bay was in a few days covered with Ducks of a kind altogether unknown to the people of that quarter. The gunners of the neighbourhood collected in boats, in every direction, shooting them; and so successful were they, that, as Mr. Beaseley informs me, two hundred and forty were killed in one day, and sold among the neighbours, at twelve and a half cents apiece, without the feathers. The wounded ones were generally abandoned, as being too difficult to be come up with. They continued about for three weeks, and during the greater part of that time a continual cannonading was heard from every quarter. The gunners called them Sea Ducks. They were all Canvass-Backs, at

that time on their way from the north, when this floating feast attracted their attention, and for a while arrested them in their course. A pair of these very Ducks I myself bought in Philadelphia market at the time, from an Egg Harbor gunner, and never met with their superior, either in weight or excellence of flesh. When it was known among those people the loss they had sustained in selling for twenty-five cents what would have brought them from a dollar to a dollar and a half per pair, universal surprise and regret were naturally enough excited.

The Canvass-Back is two feet long, and three feet in extent, and, when in good order, weighs three pounds; the bill is large, rising high in the head, three inches in length, and one inch and three-eighths thick at the base, of a glossy black; eye, very small; irides, dark red; cheeks and fore part of the head, blackish-brown; rest of the head and greater part of the neck, bright glossy reddish chestnut, ending in a broad space of black that covers the upper part of the breast, and spreads round to the back; back, scapulars, and tertials, white, faintly marked with an infinite number of transverse, waving lines or points, as if done with a pencil; whole lower parts of the breast, also the belly, white, slightly pencilled in the same manner, scarcely perceptible on the breast, pretty thick towards the vent; wing-coverts, gray, with numerous specks of blackish; primaries and secondaries, pale slate, two or three of the latter of which nearest the body are finely edged with deep velvety black,

the former dusky at the tips; tail, very short, pointed, consisting of fourteen feathers of a hoary brown; vent and tail-coverts, black; lining of the wing, white; legs and feet, very pale ash, the latter three inches in width—a circumstance which partly accounts for its great powers of swimming.

The female is somewhat less than the male, and weighs two pounds and three-quarters; the crown is blackish-brown; cheeks and throat, of a pale drab; neck, dull brown; breast, as far as the black extends on the male, dull brown, skirted in places with pale drab; back, dusky white, crossed with fine waving lines; belly, of the same dull white, pencilled like the back; wings, feet, and bill, as in the male; tail-coverts, dusky; vent, white, waved with brown.

The windpipe of the male has a large, flattish, concave labyrinth, the ridge of which is covered with a thin, transparent membrane; where the trachea enters this, it is very narrow, but immediately above swells to three times that diameter. The intestines are wide, and measure five feet in length.

THE PELICAN. (*Pelecanus onocrotalus.*)

The White or Great Pelican, or Pelecan, resembles the swan in shape and colour, but exceeds it in size. The singularity, however, which distinguishes it from all other birds, is in the bill and the great pouch underneath, which merit a particular description.

The bill of this bird is about sixteen inches long, from the point to the opening of the mouth, which is a good way behind the eyes. It is very thick at the base, where it is of a greenish tint, but tapers off towards the end, which curves downward, and is of a reddish blue. At the lower edge of the under chap hangs a pouch, capable of containing fifteen quarts of water, and reaching the whole length of the bill to the neck: this bag is covered with a very soft and smooth down, and, when empty, is scarcely perceptible; as the bird has the power of wrinkling it up into the lower jaw. This bird was formerly known in Europe, particularly in Russia; but at present it is only found in Africa and America.

The Pelican has strong wings, furnished with thick plumage of an ash-colour, as are the rest of the feathers over the whole body. The large legs are lead-coloured, and the claws gray. The number of toes is four, and these are all webbed together. The eyes are very small, when compared with the size of the head, and there is something in the countenance very sad and melancholy.

These birds are torpid and inactive to the last degree, so that nothing can exceed their indolence but their gluttony; for were they not excited to labour by the stimulus of hunger, they would always continue in fixed repose. They will often sit for whole days and nights on rocks and branches of trees, motionless, and in a melancholy posture, till the cravings of the stomach compel them to seek for food. When they have raised themselves about thirty or forty feet above the surface of the sea, they turn their head with one eye downward, and continue to fly in that posture. As soon as they perceive a fish sufficiently near the surface, they dart down with the swiftness of an arrow, seize it with unerring certainty, and store it up in their pouch: they then rise again, and continue hovering and fishing, till their bag is filled; when they retire to land, and greedily devour the fruits of their industry. They then sink to sleep, and remain inert till again obliged to provide for their subsistence.

The same habits of indolence seem to attend the Pelican in every situation; for the female does not prepare for the duties of incubation, but drops her eggs on the bare ground, to the number of five or six, and there contrives to hatch them. It is a mere poetical fiction that the Pelican feeds her young with blood from her own breast. Her little progeny, however, seem to call forth some maternal affections; for its young have been taken and tied by the leg to

a post, and the parent bird has been observed for several days to come and feed them; remaining with them the greatest part of the day, and spending the night on the branch of a tree that hung over them. By these means they became so familiar that they suffered themselves to be handled; and they very readily accepted whatever fish was given to them. These they always put first into their pouch, and then swallowed them at leisure.

Notwithstanding their natural indolence and stupidity, these birds appear to be susceptible of instruction in a domestic state. Some of them have been known to go off at the word of command, and return to their owners with their pouches distended with plunder.

It is said that, when the Pelican and the cormorant fish in company, they adopt a singular mode of catching their prey. They form a large circle, at some distance from the land, and, while the Pelicans flap their wings above, the cormorants dive beneath. The fish are thus driven before the birds, who lessen the circle as they approach the land, and thus enlose their finny spoil within a narrow space, so as to have no difficulty in seizing on a sufficient number.

THE CORMORANT. (*Phalacrocorax carbo.*)

THE Cormorant, or Corvorant, weighs about seven pounds, and is nearly the same size as a goose. The head and neck are of a sooty blackness, and the body is thick and heavy, more inclining in figure to that of the goose than the gull. Its distinguished character, however, consists in its toes being united by membranes, and by the middle toe being notched, like a saw, to assist it in holding its fishy prey.

On the approach of winter, these birds are seen dispersed along the sea-shore, and ascending the mouths of rivers, carrying destruction to all the finny tribe, as they are remarkably voracious, and have such a quick digestion that their appetite appears completely insatiable. Their intestines being thronged with small worms may, perhaps, contribute to their insatiable craving for food. They build their nests on the highest parts of the cliffs that overhang the sea; and the female usually lays three or four eggs about the size of those of the goose, and of a pale green colour.

In China these birds are bred up tame, for the purposes of fishing, and one man can easily manage a hundred of them. When a fisherman intends to fish, he carries them out into the lake, perched on the gunnel of his boat, where they continue tranquil, and expect his orders with patience. When arrived at the proper place, each flies a different way, on a given signal, to fulfil the task assigned it: and it is very pleasant on this occasion to behold with what

sagacity they portion out the lake or canal where they are upon duty. They hunt about, they plunge, they rise a hundred times to the surface, until they have at last found their prey. They then seize it with their beak by the middle, and carry it to their master. When weary they are suffered to rest for a while, but they are never fed till their work is over. In this manner they supply a very plentiful table; but still their natural voracity cannot be restrained even by education. While they fish, they have always a string fastened round their throats, to prevent them from devouring their prey; as otherwise they would soon satiate themselves, and then discontinue their pursuit. Such was formerly the practice in England; and as late as the reign of Charles I. there was an officer of the household who bore the title of Master of the Cormorants.

THE BLACK AND WHITE GULL. (*Larus marinus*.)

GULLS frequent principally the northern countries, and do not dive so much as the other water fowl; they chiefly subsisting on the gregarious fish which they catch near the surface of the water. When the sea is rough, they come into the harbours, and feed on worms. Occasionally they will even eat carrion. They fly with great rapidity; their body being light, and their wings long. It is not until the

third year that the young birds acquire the same colour as the old.

The Black and White Gull is by far the largest of all the Gull kind, as it generally weighs upwards of four pounds, and is twenty-five or twenty-six inches from the point of the bill to the end of the tail; and from the tip of each wing, when extended, five feet and several inches. The bill appears compressed sideways, being more than three inches long, and hooked towards the end, like the rest of this kind, of a sort of orange colour; the nostrils are of an oblong form; the mouth is wide, with a long tongue and very open gullet. The irides of the eyes are of a very delightful red. The wings and the middle of the back are black, only the tips of the covert and quill-feathers are white. The head, breast, tail, and other parts of the body are likewise white. The tail is near six inches long, the legs and feet are flesh-coloured, and the claws black. There are about twenty varieties of this tribe, which are all distinguished by an angular knob on the chap.

Gulls are found in great plenty in every place; but it is chiefly round our rockiest shores, that they are seen in the greatest abundance; it is there that the Gull breeds and brings up its young; it is there that millions of them are heard screaming with discordant notes for months together.

These birds, like all others of the rapacious kind, lay but few eggs; and hence, in many places, their number is daily seen to diminish. The lessening of so many rapacious

birds may, at first sight, appear a benefit to mankind; but when we consider how many persons are sustained by their flesh, either fresh or salted, we shall find no satisfaction in thinking that these poor people may in time lose their chief support. The Gull usually builds on the ledges of rocks, and lays from one egg to three, in a nest formed of long grass and sea-weed. It defends its young with great intrepidity. When the natives of the Fero Islands attempt to plunder the nest, the parent birds attack them with such vehemence that, on the men holding a knife perpendicularly above their own heads, the Gulls will sometimes transfix themselves in pouncing on the invaders. Most of the kind are fishy tasted, with black stringy flesh; yet the young ones are better food; and of these, with several other birds of the penguin kind, the poor inhabitants of the Arctic regions make their wretched banquets. They have been long used to no other food; and even a salted Gull can be relished by those who know no better.

THE GREAT TERN. (*Sterna hisundo.*)

THIS bird is about fourteen inches long, and weighs four ounces and a quarter. The bill and feet are a fine crimson, the former is tipped with black, and very slender. The back of the head is black; the upper part of the body is a

pale gray, and the under part white. They have been called Sea Swallows, from appearing to have all the same actions at sea that the swallow has on land, seizing every insect which appears on the surface, and darting down upon the smaller fishes, which they seize with incredible rapidity.

The Lesser Tern weighs only two ounces five grains. The bill is yellow, and from the eyes to the bill is a black line: in other respects it almost exactly resembles the preceding.

The Black Tern is of a middle size between the two preceding species. It weighs two ounces and a half. It receives its name from being all black as far as the vent, except a white spot under the throat. This bird is called in some parts the Car Swallow. It is very noisy.

Among the birds of this tribe, one of the most singular is the Striated Tern, which is a native of New Zealand. It has a black bill, and the body is in general mottled, or rather striped with black and white. Its length is about thirteen inches.

PURPLE GALLINULE. (*Gallinula porphyrio.*)

“THIS bird,” says Latham, “is more or less common in all the warmer parts of the globe. On the coasts of Barbary they abound, as well as on some of the islands of the

Mediterranean. In Sicily, they are bred in plenty, and kept for their beauty; but whether indigenous there, we are not certain. It is frequently met with in various parts of the south of Russia, and western parts of Siberia, among reedy places; and in the neighbourhood of the Caspian Sea not uncommon; but in the cultivated rice grounds of Ghilan in Persia, in great plenty, and in high plumage. The female makes her nest among the reeds, in the middle of March; lays three or four eggs, and sits from three to four weeks. That it is common in China, the paper-hangings thence will everywhere testify. It is also met with in the East Indies, the islands of Java, Madagascár, and many others. Our late navigators saw them at Tongataboo in vast numbers, as well as the islands of Tanna, and other parts. It is also common in the southern parts of America.

“In respect to its manners, it is a very docile bird, being easily tamed, and feeding with the poultry, scratching the ground with the foot, as the cock and hen. It will feed on many things, such as fruits, roots of plants, and grain; but will eat fish with avidity, dipping them into the water before it swallows them; will frequently stand on one leg, and lift the food to its mouth with the other, like a parrot. The flesh is said to be exquisite in taste.”

“The moderns,” says Buffon, “have given the name of Sultana Hen to a bird famous among the ancients, under the name of Porphyryon. We have frequently had occasion to remark the justness of the denominations bestowed by

the Greeks, which generally allude to the distinctive characters, and are therefore superior to the terms hastily adopted in our languages, from superficial or inaccurate views. The present is an instance; as this bird seemed to bear some resemblance to the gallinaceous tribe, it got the name of Hen; but as, at the same time, it differed widely, and excelled by its beauty and port, it received the epithet of Sultana. But the term *Porphyron*, indicating the red or purple tint of its bill and feet, was more just and characteristic; and should we not rebuild the fine ruins of learned antiquity, and restore to nature those brilliant images, and those faithful portraits from the delicate pencil of the Greeks, ever awake to her beauties and her animation?

“Both the Greeks and Romans, notwithstanding their voracious luxury, abstained from eating the *Porphyron*. They brought it from *Lybia*, from *Comagene*, and from the *Balearic Islands*, to be fed and to be placed in their palaces and temples, where it was left at liberty as a guest, whose noble aspect, whose gentle disposition, and whose elegant plumage, merited such honours.

“Scarcely any bird has more beautiful colours; the blue of its plumage is soft and glossy, embellished with brilliant reflections; its long feet, and the plate from the top of its head to the root of its bill, are of a fine red; and a tuft of white feathers under the tail heightens the lustre of its charming garb. Except that it is rather smaller, the female

differs not from the male, which exceeds the partridge, but is inferior to a domestic hen. The Marquis de Nesle brought a pair from Sicily, where they are known under the name of Gallofagiani; they are found on the lake Lentini, above Catana, and are sold for a moderate price in that city, as well as in Syracuse and the adjacent towns. They appear alive in the public places, and plant themselves beside the sellers of vegetables and fruits to pick up the refuse; and this beautiful bird, which the Romans lodged in their temples, now experiences the decline of Italy."

The length of the Purple Gallinule is fourteen inches; its bill is an inch and a quarter long, red, yellow at the tips; nostril, small, oblong, and near the centre of the bill; irides, tawny; the naked front and crown are red; the head, part of the neck, throat, and breast are of a rich violet purple; the back and scapulars, brownish-green; rump, tail, and its coverts, of a duller brownish-green; the sides of the neck, ultramarine; wings, the same, tinged with green; the inner webs of the quill-feathers and tail, dusky brown; upper lining and side lining of the wings, under the spurious wing, rich light blue; the belly, thighs, and for an inch behind, dull purplish black; the vent pure white; tail, rounded; thighs, legs, and feet, red; span of the foot, five inches; hind toe and claws, long.

GREAT NORTHERN DIVER, OR LOON.

(*Colymbus glacialis.*)

THIS bird in Pennsylvania is migratory. In the autumn, it makes its appearance with the various feathered tribes that frequent our waters; and, when the streams are obstructed with ice, it departs for the Southern States. In the months of March and April, it is again seen, and, after lingering a while, it leaves us for the purpose of breeding. The Loons are found along the coast, as well as in the interior; but in the summer they retire to the fresh-water lakes and ponds. We have never heard that they breed in Pennsylvania, but it is said they do in Missibisci Pond, near Boston, Massachusetts. The female lays two large brownish eggs. They are commonly seen in pairs; and procure their food, which is fish, in the deepest water of our rivers, diving after it, and continuing under for a length of time. Being a wary bird, it is seldom they are killed, eluding their pursuers by their astonishing faculty of diving. They seem averse from flying, and are but seldom seen on the wing. They are never eaten.

The Loon is restless before a storm; and an experienced master of a coasting-vessel informed me that he always knew when a tempest was approaching by the cry of this bird, which is very shrill, and may be heard at the distance of a mile or more.

This species seldom visits the shores of Britain, except in very severe winters; but it is met with in the north of Europe, and spreads along the Arctic coast as far as the mouth of the river Ob, in the dominions of Russia. It is found about Spitzbergen, Iceland, and Hudson's Bay. Makes its nest, in the more northern regions, on the little isles of fresh-water lakes: every pair keep a lake to themselves. It sees well, flies very high, and, darting obliquely, falls secure into its nest. Appears in Greenland in April, or the beginning of May, and goes away in September, or October, on the first fall of snow. It is also found at Nootka Sound, and Kamtschatka.

The Barabinsians—a nation situated between the river Ob and the Irtisch, in the Russian dominions—tan the breasts of this and other water fowl, whose skins they prepare in such a manner as to preserve the down upon them; and, sewing a number of these together, they sell them to make pelisses, caps, &c. Garments made of these are very warm, never imbibing the least moisture, and are more lasting than could be imagined.

The natives of Greenland use the skins for clothing, and the Indians about Hudson's Bay adorn their heads with circlets of their feathers.

Lewis and Clark's party, at the mouth of the Columbia, saw robes made of the skins of Loons, and abundance of these birds, during the time that they wintered at Fort Clatsop, on that river.

The Laplanders, according to Regnard, cover their heads with a cap made of the skin of a Loom (Loon), which word signifies in their language, *lame*, because the bird cannot walk well. They place it on their head in such a manner that the bird's head falls over their brow, and its wings cover their ears.

“Northern Divers,” says Hearne, “though common in Hudson's Bay, are by no means plentiful; they are seldom found near the coast, but more frequently in fresh-water lakes, and usually in pairs. They build their nests at the edge of small islands, or the margins of lakes or ponds; they lay only two eggs; and it is very common to find only one pair and their young in one sheet of water—a great proof of their aversion to society. They are known in Hudson's Bay by the name of Loons.”

The Great Northern Diver measures two feet ten inches from the tip of the bill to the end of the tail, and four feet six inches in breadth.

BLACK-HEADED GULL. (*Larus ridibundus*.)

LENGTH, seventeen inches; extent, three feet six inches; bill, thighs, legs, feet, sides of the mouth, and eyelids, dark blood red; inside of the mouth, vermilion; bill, nearly two

inches and a half long; the nostril is placed rather low; the eyes are black; above and below each eye there is a spot of white; the head and part of the neck are black, remainder of the neck, breast, whole lower parts, tail-coverts, and tail, pure white; the scapulars, wing-coverts, and whole upper parts, are of a fine blue ash colour; the first five primaries are black towards their extremities; the secondaries are tipped largely with white, and almost all the primaries slightly; the bend of the wing is white, and nearly three inches long; the tail is almost even; it consists of twelve feathers, and its coverts reach within an inch and a half of its tip; the wings extend two inches beyond the tail; a delicate blush is perceivable on the breast and belly.

The head of the female is of a dark dusky slate colour; in other respects, she resembles the male.

We are inclined (says Wilson) to the opinion, that the three Gulls of Latham, viz., the Black-headed Gull, the Red-legged Gull, and the Laughing Gull, are one and the same species, the very bird which we have been describing, the difference in their markings arising from their age and sex. We feel emboldened to this declaration from the circumstance of having ourselves shot Gulls which corresponded almost precisely to those of the above author, of the same habits, the same voice, and which were found associating together.

In some individuals, the crown is of a dusky gray; the

upper part and sides of the neck, of a lead colour; the bill and legs, of a dirty, dark, purplish brown. Others have not the white spots above and below the eyes; these are young birds.

The changes of plumage, to which birds of this genus are subject, have tended not a little to confound the naturalist; and a considerable collision of opinion, arising from an imperfect acquaintance with the living subjects, has been the result. To investigate thoroughly their history, it is obviously necessary that the ornithologist should frequently explore their native haunts; and, to determine the species of periodical or occasional visitors, an accurate comparative examination of many specimens, either alive or recently killed, is indispensable. Less confusion would arise among authors, if they would occasionally abandon their accustomed walks—their studies and their museums, and seek correct knowledge in the only place where it is to be obtained—in the grand temple of nature. As it respects, in particular, the tribe under review, the zealous inquirer would find himself amply compensated for all his toil, by observing these neat and clean birds coursing along the rivers and coast, enlivening the prospect by their airy movements, now skimming closely over the watery element, watching the motions of the surges, and now rising into the higher regions, sporting with the winds,—while he inhaled the invigorating breezes of the ocean, and listened to the soothing murmurs of its billows.

The Black-headed Gull is the most beautiful and most sociable of its genus. They make their appearance on the coast of New Jersey in the latter part of April; and do not fail to give notice of their arrival by their familiarity and loquacity. The inhabitants treat them with the same indifference that they manifest towards all those harmless birds which do not minister either to their appetite or their avarice; and hence the Black-Heads may be seen in companies around the farm-house, coursing along the river-shores, gleaning up the refuse of the fishermen, and the animal substances left by the tide; or scattered over the marshes and newly-ploughed fields, regaling on the worms, insects, and their larvæ, which, in the vernal season, the bounty of Nature provides for the sustenance of myriads of the feathered race.

On the Jersey side of the Delaware Bay, in the neighbourhood of Fishing Creek, about the middle of May, the Black-headed Gulls assemble in great multitudes, to feed upon the remains of the king-crabs which the hogs have left, or upon the spawn which those curious animals deposit in the sand, and which is scattered along the shore by the waves. At such times, if any one approach to disturb them, the Gulls will rise up in clouds, every individual squalling so loud, that the roar may be heard at the distance of two or three miles.

It is an interesting spectacle to behold this species when about recommencing their migrations. If the weather be

calm, they will rise up in the air, spirally, chattering all the while to each other in the most sprightly manner, their notes at such times resembling the singing of a hen, but far louder, changing often into a *haw, ha, ha, ha, haw!* the last syllable lengthened out like the excessive laugh of a negro. When mounting and mingling together, like motes in the sunbeams, their black heads-and wing-tips, and snow-white plumage, give them a very beautiful appearance. After gaining an immense height, they all move off, with one consent, in a direct line towards the point of their destination.

This bird breeds in the marshes. The eggs are three in number, of a dun clay colour, thinly marked with small, irregular touches of a pale purple, and pale brown; some are of a deeper dun, with larger marks, and less tapering than others; the egg measures two inches and a quarter by one inch and a half.

The Black-Heads frequently penetrate into the interior, especially as far as Philadelphia; but they seem to prefer the neighbourhood of the coast for the purpose of breeding. They retire southward early in autumn.

ILLUSTRATIVE ANECDOTES.

This species is found in every part of Russia and Siberia, and even in Kamtschatka. They are seen throughout the winter at Aleppo, in great numbers, and so tame, that the women are said to call them from the terraces of their

houses, throwing up pieces of bread, which these birds catch in the air.

The Black-headed Gull is common in Great Britain. "In former times," says Bewick, "these birds were looked upon as valuable property, by the owners of some of the fens and marshes in this kingdom, who, every autumn, caused the little islets or hafts, in those wastes, to be cleared of the reeds and rushes, in order properly to prepare the spots for the reception of the old birds in the spring, to which places at that season they regularly returned in great flocks to breed. The young ones were then highly esteemed, as excellent eating, and on that account were caught in great numbers, before they were able to fly. Six or seven men, equipped for this business, waded through the pools, and with long staves drove them to the land, against nets placed upon the shores of these hafts, where they were easily caught by the hand, and put into pens ready prepared for their reception. The gentry assembled from all parts to see the sport.

"Dr. Plot, in his Natural History of Staffordshire, published in 1686, gives the above particulars, and says that in this manner as many have been caught in one morning as, when sold at five shillings per dozen (the usual price at that time), produced the sum of twelve pounds ten shillings; and that in the several drifts on the few succeeding days of this sport, they have been taken in some years in such abundance, that their value, according to the above

rate, was from thirty to sixty pounds—a great sum in those days. These were the *See Gullies*, of which we read as being so plentifully provided at the great feasts of the ancient nobility and bishops of this realm. Although the flesh of these birds is not now esteemed a dainty, and they are seldom sought after as an article of food, yet in the breeding season, where accommodation and protection are afforded them, they still regularly resort to the same old haunts, which have been occupied by their kind for a long time past. This is the case with the flocks which now breed at Pallinsburne, in Northumberland, where they are accounted of great use in clearing the surrounding lands of noxious insects, worms, slugs, &c.”

THE EIDER DUCK. (*Anas mollissima*.)

THE Eider Duck has been long celebrated in Europe, for the abundance and excellence of its down, which, for softness, warmth, lightness, and elasticity, surpasses that of all other ducks. The quantity found in one nest more than filled the crown of a hat, yet weighed no more than three-quarters of an ounce; and it is asserted, that three pounds of this down may be compressed into a space scarce bigger than a man's fist, yet is afterwards so dilatible as to fill a quilt five feet square.

The native regions of the Eider Duck extend from 45° N. to the highest latitudes yet discovered, both in Europe and America. Solitary rocky shores and islands are their favourite haunts. Some wandering pairs have been known to breed on the rocky islands beyond Portland, in the state of Maine, which is perhaps the most southern extent of their breeding place.

In England, the Fern Isles, on the coast of Northumberland, are annually visited by a few of these birds, being the only place in South Britain where they are known to breed. They occur again in some of the Western Isles of Scotland. Greenland and Iceland abound with them, and here, in particular places, their nests are crowded so close together, that a person can scarcely walk without treading on them.

The natives of these countries know the value of the down, and carry on a regular system of plunder, both of it and also of the eggs. The nest is generally formed outwardly of drift-grass, dry sea-weed, and such like materials; the inside composed of a large quantity of down, plucked from the breast of the female. In this soft, elastic bed she deposits five eggs, extremely smooth and glossy, of a pale olive colour; they are also warmly covered with the same kind of down. When the whole number is laid, they are taken away by the natives, and also the down with which the nest is lined, together with that which covers the eggs. The female once more strips her breast of the remaining down, and lays a second time; even this, with the eggs, is

generally taken away; and it is said that the male, in this extremity, furnishes the third quantity of down from his own breast; but if the cruel robbery be a third time repeated, they abandon the place altogether.

One female, during the whole time of laying, generally gives half a pound of down; and we are told, that, in the year 1750, the Iceland Company sold as much of this article, as amounted to three thousand seven hundred and forty-five banco dollars, besides what was directly sent to Gluckstadt. The down from dead birds is little esteemed, having lost its elasticity.

These birds associate together in flocks, generally in deep water, diving for shell-fish, which constitute their principal food. They frequently retire to the rocky shores to rest, particularly on the appearance of an approaching storm. They are numerous on the coast of Labrador, and are occasionally seen in winter as far south as the Capes of Delaware. Their flesh is esteemed by the inhabitants of Greenland; but tastes strongly of fish.

THE CANADA GOOSE. (*Anas Canadensis.*)

THIS (says Wilson) is the Common Wild Goose of the United States, universally known over the whole country;

whose regular periodical migrations are the sure signals of returning spring, or approaching winter. The tracts of their vast migratory journeys are not confined to the sea-coast or its vicinity. In their aerial voyages to and from the north, these winged pilgrims pass over the interior, on both sides of the mountains, as far west, at least, as the Osage river; and I have never yet visited any quarter of the country where the inhabitants are not familiarly acquainted with the regular passing and repassing of the Wild Geese.

The general opinion here is, that they are on their way to the lakes to breed; but the inhabitants on the confines of the great lakes that separate us from Canada, are equally ignorant with ourselves of the particular breeding places of those birds. There, their journey north is but commencing; and how far it extends it is impossible for us, at present, to ascertain, from our little acquaintance with these frozen regions. They were seen by Hearne, in large flocks, within the Arctic circle, and were then pursuing their way still further north. Captain Phipps speaks of seeing Wild Geese feeding at the water's edge on the dreary coast of Spitzbergen, in lat. $80^{\circ} 27'$. It is highly probable that they extend their migrations under the very pole itself, amid the silent desolation of unknown countries, shut out since creation from the prying eye of man by everlasting and insuperable barriers of ice. That such places abound with their suitable food, we cannot for a moment doubt;

while the absence of their great destroyer, man, and the splendours of a perpetual day, may render such regions the most suitable for their purpose.

Having fulfilled the great law of nature, the approaching rigours of that dreary climate oblige these vast, congregated flocks to steer for the more genial regions of the south. And no sooner do they arrive at those countries of the earth inhabited by man, than carnage and slaughter is commenced on their ranks. The English at Hudson's Bay, says Pennant, depend greatly on Geese, and in favourable years, kill three or four thousand, and barrel them up for use. They send out their servants, as well as Indians, to shoot these birds on their passage. It is in vain to pursue them; they therefore form a row of huts, made of boughs, at musket-shot distance from each other, and place them in a line across the vast marshes of the country. Each stand, or hovel, as it is called, is occupied by only a single person. These attend the flight of the birds, and, on their approach, mimic their cackle so well that the Geese will answer, and wheel, and come nearer the stand. The sportsman keeps motionless, and on his knees, with his gun cocked the whole time, and never fires till he has seen the eyes of the Geese. He fires as they are going from him; then picks up another gun that lies by him and discharges that. The Geese which he has killed he sets upon sticks, as if alive, to decoy others; he also makes artificial birds for the same purpose.

In a good day,—for they fly in very uncertain and unequal numbers,—a single Indian will kill two hundred. Notwithstanding every species of Goose has a different call, yet the Indians are admirable in their imitations of every one. The autumnal flight lasts from the middle of August to the middle of October; those which are taken in this season, when the frosts begin, are preserved in their feathers, and left to be frozen for the fresh provisions of the winter stock. The feathers constitute an article of commerce, and are sent to England.

The vernal flight of the Geese lasts from the middle of April until the middle of May. Their first appearance coincides with the thawing of the swamps, when they are very lean. Their arrival from the south is impatiently attended; it is the harbinger of the spring, and the month named by the Indians the Goose moon. They appear usually at their settlements about St. George's day, O. S., and fly northward, to nestle in security. They prefer islands to the continent, as further from the haunts of man.

After such prodigious havoc as thus appears to be made among these birds, and their running the gauntlet, if I may so speak, for many hundreds of miles through such destructive fires, no wonder they should have become more scarce, as well as shy, by the time they reach the shores of the United States.

Their first arrival on the coast of New Jersey is early in October, and their first numerous appearance is the sure

prognostic of severe weather. Those which continue all winter frequent the shallow bays and marsh islands; their principal food being the broad, tender, green leaves of a marine plant which grows on stones and shells, and is usually called sea cabbage; and also the roots of the sedge, which they are frequently observed in the act of tearing up.

The Wild Goose, when in good order, weighs from ten to twelve, and sometimes fourteen pounds. They are sold in the Philadelphia markets at from seventy-five cents to one dollar each; and are estimated to yield half-a-pound of feathers apiece, which produces twenty-five or thirty cents more.

The Canada Goose is now domesticated in numerous quarters of the country, and is remarked for being extremely watchful; and more sensible of approaching changes in the atmosphere than the common gray goose. In England, France, and Germany, they have also been long ago domesticated.

ILLUSTRATIVE ANECDOTE.

Mr. Platt, a respectable farmer on Long Island, being out shooting in one of the bays, which, in that part of the country, abound with water-fowl, wounded a Wild Goose. Being wing-tipped, and unable to fly, he caught it, and brought it home alive. It proved to be a female; and, turning it into his yard, with a flock of tame geese, it soon became quite tame and familiar, and in a little time its

wounded wing entirely healed. In the following spring, when the Wild Geese migrate to the northward, a flock passed over Mr. Platt's barn-yard; and, just at that moment, their leader happening to sound his bugle-note, our Goose, in whom its new habits and enjoyments had not quite extinguished the love of liberty, and remembering the well-known sound, spread its wings, mounted into the air, joined the travellers, and soon disappeared. In the succeeding autumn, the Wild Geese, as was usual, returned from the northward in great numbers, to pass the winter in our bays and rivers. Mr. Platt happened to be standing in his yard when a flock passed directly over his barn. At that instant, he observed three Geese detach themselves from the rest, and, after wheeling round several times, alight in the middle of the yard. Imagine his surprise and pleasure, when, by certain well-remembered signs, he recognised in one of the three his long-lost fugitive. It was she indeed! She had travelled many hundred miles to the lakes; had there hatched and reared her offspring; and had now returned with her little family, to share with them the sweets of civilized life.

THE SKUA GULL. (*Lestris catarractes*.)

THIS daring Jager, or feathered pirate of the ocean (says Nuttall) has spread its dominion to the extremes of both hemispheres, dwelling chiefly on the hyperboreal or antarctic seas. It is found in the Hebrides, Orkney, Shetland, and Faroe Islands, as well as in Norway and Iceland. In America, it is found in the high northern regions; then again in many parts of the Pacific, at Port Egmont, in the Falkland Islands (hence called Port Egmont Hens.) In the latter end of December, their breeding season in that hemisphere, at Christmas Sound, in Terra del Fuego, they were found in great plenty, making their nests in the dry grass. They are also seen to the east of New Zealand. Such is the extensive geographic range of this species, according to Pennant and others, at the same time, we may fairly doubt the identity of the northern and southern birds, since they are but rarely seen on their passage any great distance towards the south. Off the coast of Newfoundland, probably this species is seen in June, widely exploring the ocean, and in the depth of winter they migrate into the bays along the coast of Massachusetts, but I believe they are nearly unknown as far south as the coast of New

supposed identic species of the two hemispheres
before never to meet in their range to warmer

countries, proceeding rarely, if ever, into the tropics, we may almost rest satisfied that, however closely allied, they are still of distinct races, originating from different creative points of the globe.

The Cataract Yager, so called by Linnæus from the rapidity and violence with which it darts down on its prey, is a very bold and voracious species. Like the eagle it sometimes pounces upon the domestic flocks, and tearing up a lamb, carries the mangled pieces to feed its craving brood. In the rocky island of Foula, however, better supplied with its ordinary fare from the deep, it even refrains from injuring the poultry, and in its enmity to the eagle, defends the flocks from its attacks; so different, according to circumstances, are the habits and propensities of animals.

It however often preys on the small gulls and other birds with all the rapacity of a hawk, and for which its powerful claws seem to indicate both the ability and instinctive inclination. It is often, at the same time, satisfied with seizing on the fish, which its accidental provider easily disgorges whenever alarmed. In defence of its young its temerity scarcely knows any bound. It will at such times often attack a whole company of men, should they disturb it, or molest its cherished brood.

After the breeding season, old and young take to the sea, in small companies or pairs, and venture, like the albatross, boldly and securely over the wide ocean. Off the stormy

Cape of Good Hope and Cape Horn, as in the middle of the vast Atlantic, these black and piratical birds, like weathered mariners, are seen to levy their contributions upon the inhabitants of the deep, soaring on high above the mountain wave, and flying out in easy circling tours like so many boding ravens, occasionally reconnoitring at a distance the sailing vessel that accidentally ventures across their wide and desolate domain.

In the southern hemisphere, bold and predaceous by privation, the Skua Jager is frequently seen to attack the gigantic albatross, beating it with violence while on the wing, and who generally escapes from the daring freebooter alone by settling down into the water. Still the Jager himself succumbs to the rage and violence of the elements, and at the approach, or during the continuance of the tempest, he condescends to seek out the shelter of the bay or the neighbouring coast. They are also not unfrequently associated with the common tern, and have a somewhat similar cry.

The Skua, like the larger Gulls, commonly feeds on fish and mollusca, as well as on carrion and cetaceous animals, and seeking out the nests of other marine birds, he robs them frequently of their eggs. They nest themselves in the remote and cold regions, associating in large bands, on the summits of mountains, or in the herbage and heath contiguous to the coast. They lay three or four very pointed olivaceous eggs, sprinkled with large brown spots.

THE WOODCOCK. (*Rusticola minor.*)

THE American Woodcock, like the snipe, appears again to be a near representative of that of Europe, whose manners and habits it almost entirely possesses, differing, however, materially in the temperature of the climates selected for its residence, confining itself in the summer to the south side of the St. Lawrence, breeding in all the intermediate space as far as the limits of the Middle States, and retiring in winter, for the most part, either to or beyond the boundary of the Union.

The European species, on the contrary, courting cooler climates, winters in Great Britain and the north of Europe, and retires as early as March, to breed in the Alps or in the frigid wilds of Sweden, Norway, Russia, and penetrates even to the icy shores of Greenland, and the heaths of Iceland. About the same period, early in March, the American Woodcock revisits Pennsylvania, and soon after the New England or Eastern States. Indeed, so sedentary is the species at times, that a few are known to winter in the sheltered forests and open watery glades of Pennsylvania; at the same season also, many are seen in the vicinity of Natchez, in Mississippi.

According to their usual habits, they keep secluded in the woods and thickets, till the approach of evening, when they sally forth to seek out springs, paths, and broken soil, in quest of worms and other insects, on which they feed.

They now disperse themselves over the country to breed, and indicate their presence in all directions by the marks of their boring bills, which are seen in such soft and boggy places as are usually sheltered by thickets and woods. They also turn over the fallen leaves from side to side with their bills in quest of lurking insects, but never scratch with their feet, though so robust in their appearance.

The sensibility possessed by the extremity of the bill, as in the snipe, is of such an exquisite nature, that they are enabled to collect their food by the mere touch, without using their eyes, which are set at such a distance and elevation in the back part of the head, as to give the bird a remarkable aspect of stupidity. When flushed or surprised in their hiding-places, they only rise in a hurried manner to the tops of the bushes, or glide through the undergrowth to a short distance, when they instantly drop down again, and run out for some space on touching the ground, lurking as soon as they imagine themselves in a safe retreat. At times, in open woods, they fly out straight with considerable vigour and swiftness, but the effort, from the shortness of the wing, is always attended with much muscular exertion.

Early in April, the Woodcocks in pairs select a spot for breeding, which is generally in or near some retired part of the same woods which usually affords them their food and shelter. The nest is placed on the ground, in a tuft of grass, or in the protection of some old stump. It is formed

with little art, of such withered leaves and old grass as the convenience of the place affords; the eggs are four, rather large, of a dark yellowish-white approaching olive, specked and confluent blotched with three slightly different shades of dark yellowish-brown spots, most numerous at the greater end. Eggs have been found, even in Massachusetts, in sheltered woods, as early as the month of February; but the usual time, according to the age and general appearance of the young, is not before the commencement of April.

At this time, in the morning, as well as evening; but more particularly the latter, the male, in the vicinity of his mate and nest, rises successively in a spiral course, like a lark. While ascending he utters a hurried and feeble warble; but in descending the tones increase as he approaches towards the ground, and then, becoming loud and sweet, passes into an agreeable, quick, and tumultuous song. As soon as the performer descends, the sound ceases for a moment, when with a sort of stifled utterance, accompanied by a stiff and balancing motion of the body, the word *blaik*, and sometimes *paip paip* is uttered. This uncouth and guttural bleating seems a singular contrast to the delightful serenade, of which this is uniformly the close.

I heard this piping and bleating (says Mr. Nuttall) in the marshes of West Cambridge, on the 15th of April, and they had arrived about the first week in that month. This nocturnal music continued at regular intervals, and in succes-

sion, until near nine o'clock in the evening, and is prolonged for a number of days during the period of incubation, probably ceasing with the new cares attendant on the hatching of the brood. The female, as in the European species, is greatly attached to her nest, and an instance is related to me of a hen being taken up from it, and put on again without attempting to fly.

ILLUSTRATIVE ANECDOTES.

Mr. Latham mentions a female of the common Woodcock sitting on her eggs so tamely, that she suffered herself to be stroked on the back without offering to rise, and the male, no less interested in the common object of their cares, sat also close at hand. The European species has had the credit of exercising so much ingenuity and affection, as to seize upon one of its weakly young, and carry it along to a place of security from its enemies.

Mr. Ives, of Salem, once on flushing an American Woodcock from its nest, was astonished to see that it carried off in its foot one of its brood, the only one which happened to be newly hatched; and as the young run immediately on leaving the shell, it is obvious that the little nurslings could be well reared, or all of them, as they might appear, without the aid of the nest, now no longer secured from intrusion.

In New England this highly esteemed game is common in the market of Boston to the close of October, but they

all disappear in the latter part of December. In that quarter of the Union they are scarcely in order for shooting before the latter end of July, or beginning of August; but from this time to their departure, they continue in good condition for the table.

The springes or springers, set for Woodcocks in Europe, in places they are found to frequent by the evidence of their borings, &c., are commonly formed of an elastic stick, to which is fastened a horse-hair noose, put through a hole in a peg, fastened into the ground, to which a trigger is annexed: and, in order to compel the Woodcock to walk into the trap, an extended fence is made on each side, by small sticks, set up close enough to prevent the bird passing between them; these concentrate at the trap, so that in this funnel-shaped fence, the bird, in feeding, is made to pass through the narrow passage, and is almost to a certainty caught by the legs.

As the season advances, and food begins to fail, by reason of inclement and cold weather, the Woodcocks leave the interior; and approaching the shelter of the sea-coast and the neighbouring marshes, they now become abundant, and are, at such times, late in autumn, killed in great numbers. These are also their assembling points previous to their southern migrations, which are performed in a desultory and irregular manner, their motions, as usual, being mostly nocturnal, or in the twilight; and though many are now met with in the same low meadows and marshes, they are

brought together by common necessity, and never move in concerted flocks.

At this season, their movements are not betrayed by any note or call; the vocal powers of the species are only called into existence at the period of propagation; at other times they move and start to wing in silence. The young run or wander off as soon as they are hatched, are at this period covered with a brownish-white down, and, on being taken, utter a slender bleat, or clear and long drawn *péep*.

THE GREAT AUK. (*Alca impennis*).

THIS bird is of the size of a goose; its bill is black, and covered at the base with short velvetlike feathers. The upper parts of the plumage are black, and the lower parts white, with a spot of white between the bill and the eyes, and an oblong stripe of the same on the wings, which are too short for flight. It is a very bad walker, but swims and dives well. It is, however observed by seamen, that it is never seen out of soundings, so that its appearance serves as an infallible direction to land. It feeds on the lumpfish, and others of the same size; and is frequently seen on the coasts of Norway, Greenland, Newfoundland, &c. The female lays but one egg, which she hatches on a ledge, close to the seamark.

There is another bird of this description, called the Penguin, of which there are several varieties, which seems to hold the same place in the southern parts of the world, that the Auks do in the northern; being only found in the temperate and frigid zones of the southern hemisphere. It resembles the former in almost all its habits: walking erect, and being very stupid: it also resembles it in colour, shortness of wings, rapidity of swimming, mode of feeding, and of making its nest. These birds hatch their young in an erect position; and cackle like geese, but in a hoarser tone. The most remarkable kind is the Crested Penguin, which inhabits several of the South Sea islands, and which is sometimes called the Hopping Penguin, or Jumping Jack, from the circumstance of its leaping quite out of the water, sometimes to the height of three or four feet, when it meets an obstacle in its course.

THE SNIPE. (*Scolopax Wilsonii.*)

THE Snipe of North America, so nearly related to that of Europe, is found according to the season, in every part of the continent, from Hudson's Bay to Cayenne, and does not appear indeed sufficiently distinct from the Brazilian Snipe of Swainson, which inhabits abundantly the whole of

South America as far as Chili. Many winter in the marshes and inundated river-grounds of the Southern States of the Union, where they are seen in the month of February, frequenting springs and boggy thickets; others proceed along the coast of the Gulf of Mexico, and even penetrate into the equatorial regions.

By the second week in March, they begin to revisit the marshes, meadows, and low grounds of the Middle States, and soon after they arrive in New England. In mild and cloudy weather, towards evening, and until the last rays of the setting sun have disappeared from the horizon, we hear, as in the north of Europe, the singular tremulous murmurings of the Snipes, making their gyratory rounds so high in the air as scarcely to be visible to the sight. This humming, or rather flickering and somewhat wailing sound, has a great similarity to the booming of the night-hawk; but more resembles the sound produced by quickly and interruptedly blowing into the neck of a large bottle than the whirring of a spinning-wheel.

But, however difficult and awkward may be our attempts to convey any adequate idea of this quailing murmur, it seems to be, to its agent, an expression of tender feeling or amatory revery, as it is only uttered at the commencement, and during the early part of the pairing season, while hovering over those marshes or river-meadows, which are to be the cradle and domicile of their expected progeny, as they have already been of themselves and their mates.

This note is probably produced by an undulatory motion of air in the throat, while in the act of whirling flight; and appears most distinct as the Snipe descends towards the ground. However produced, the sound and its originators are commonly so concealed by the fast closing shades of night, and the elevation from whence it issues in cloudy weather, that the whole seems shrouded in mystery.

My aged maternal parent (says Mr. Nuttall) remembered, and could imitate with exactness this low wailing murmur; which she had for so many years heard over the marshes of my native Ribble, in the fine evenings of spring, when all nature seemed ready to do homage for the bounties of the season; and yet at the age of seventy, the riddle had not been expounded with satisfaction.

Over the wide marshes of Fresh Pond, about the middle of April, my attention was called to the same invisible voice, which issued from the floating clouds of a dark evening; the author was here called the Alewife Bird, from its arrival with the shoals of that fish in the neighbouring lake.

From the elevation at which the sound issued, probably, it appeared less loud and distinct than that which I have since heard from the English Snipe. I imagined then, that the noise was made by the quick and undulatory fanning of the wings, but this would not produce the shrillness of tone by which it is characterized, as any one may satisfy himself by hearkening to the very different low buzz

made by the wings of the humming bird. In this instance, as well as in the former, all my sporting acquaintance were familiar with this quivering call, but had never decided upon its author.

At the same time, probably instigated by anger and jealousy, I observed flying high and rapid, a pair of these Snipes, who then uttered a discordant quacking sound; something like the bleat they make when they have descended to the ground, and which they accompany with an attitude of peculiar stupidity, balancing the head forwards, and the tail upwards and downwards, like the action of some automaton toy, jerked and set in motion by a tight-drawn string.

After incubation, which takes place rather early in the spring, the humming is no longer heard, and the sprightly aerial evolutions which appeared so indefatigable, have now given way to sedater attitudes and feebler tones. A few pairs no doubt breed in the extensive and almost inaccessible morasses of Cambridge ponds or lagoons; and I have been informed, that they select a tuft of sedge for the foundation of the nest, which is constructed with considerable art; the eggs, like those of the European species, about four, are perhaps alike olivaceous and spotted with brown.

They probably scatter themselves over the interior of the continent to breed, nowhere associating in great numbers; nor are they at all common in the hyperboreal retreats chosen by so many of the other wading birds. My friend,

Mr. Ives, of Salem, also informs me, that a few pairs of this species breed in that vicinity.

The Snipe, almost nocturnal in its habits, conceals itself with assiduity in the long grass, sedge, and rushes of its enswamped and boggy retreat. Aware of danger from the approach of the sportsman, it springs at a distance with great rapidity, uttering usually a feeble squeak; and making several inflections before it takes a direct course, it becomes very difficult to shoot, and is more easily caught with a snare or springe similar to that which is set for woodcocks. Being, deservedly, in high repute, as an exquisite flavoured game, great pains are taken to obtain Snipes.

In the spring season, on their first arrival, they are lean; but in the autumn, assembled towards the coast from all parts of the interior, breeding even to the banks of the Mississippi, they are now fat and abundant, and, accompanied by their young, are at this time met with in all the low grounds and enswamped marshes along the whole range of the Atlantic; but ever shy and dexterous, they are only game for the most active and eager sportsmen. When on the wing, they may, like many other birds of this family, be decoyed and attracted by the imitation of their voice.

They are, like the European Snipe, which migrates to winter in England, by no means averse to cold weather, so long as the ground is not severely frozen, in such a manner as to exclude their feeding; so that even in Massachusetts they are found occasionally down to the middle of December.

They are nowhere properly gregarious, but only accidentally associate, where their food happens to be abundant. For this purpose they are perpetually nibbling and boring the black marshy soil, from which they sometimes seem to collect merely the root-fibres which it happens to contain, though their usual and more substantial fare consists of worms, leeches, and some long-legged aquatic insects; the Snipe of Europe also seizes upon the smaller species of *Scarabæus*. Their food, no doubt, is mixed with the black and slimy earth they raise while boring for roots and worms, and which, in place of gravel, or other hard substances, appears to be the usual succedaneum they employ to assist their digestion and distend the stomach.

THE CAROLINA RAIL. (*Rallus Carolinus*.)

THE Soree, or Common Rail of America, which assemble in such numbers on the reedy shores of the larger rivers, in the Middle and adjoining warmer states, at the approach of autumn, and which afford such abundant employ to the sportsman, at that season, like most of the tribe to which it belongs, is a bird of passage, wintering generally south of the limits of the Union.

They begin to make their appearance, in the marshes of

Georgia, by the close of February; and, on the 2d of May, Wilson observed them in the low watery meadows below Philadelphia. In the remote fur countries of the north, up to the 62d parallel, they are common through the summer, and were observed by Dr. Richardson to be particularly abundant on the banks of the small lakes that skirt the Saskatchewan plains. In the vast reedy marshes, swamps, and lagoons of these desolate regions, the greater part of the species are no doubt reared, as but few of them are ever known to breed in the warmer parts of the continent, and the history of their manners, at the period of incubation, is, therefore, still a blank.

The observations of persons not conversant with the nice distinctions necessary in natural history, ought to be received with caution, as they might easily confound the mere young of the present and the preceding species, as one and the same. The alleged nest, eggs, and young birds covered with a black down, mentioned by Wilson, agree perfectly with the Virginian Rail; but the length of the bill, and any other discriminating particulars, are wholly omitted.

We may conclude, therefore, up to the present time, that the actual young and nest of the Soree are yet unknown, and that all which has been said on this subject is but conjecture, or a misapplication of facts belonging to the preceding species.

Like the other migrating waders, the Rails, accompanied by their swarming broods, bred in the north and west,

begin to show themselves on the reedy borders of the Delaware, and other large waters of the Middle States, whose still and sluggish streams, spreading out over muddy flats, give birth to an abundant crop of the seeds of the wild rice, now the favourite food of the Rails and the rice birds.

On first arriving, from the labour and privation incident to their migrations, they are lean, and little valued as food; but as their favourite natural harvest begins to swell out and approach maturity, they rapidly fatten; and, from the middle of September to the same time in October, they are in excellent order for the table, and eagerly sought after wherever a gun can be obtained and brought into operation.

Walking by the borders of these reedy rivers, in ordinary seasons, you hear, in all directions, the crowding Rails squeaking like young puppies. If a stone be thrown in amongst them, there is a general outcry through the reeds, a confused and reiterated 'kuk' 'kuk' 'kuk' 'k'k' 'k'k', resounds from the covered marsh, and is again renewed by the timid throng, on the discharge of a gun or any other sudden noise within their hearing.

The Rails, however numerous, are scarcely visible, unless it be at or near to high water; for when the tide is down, they have the art so well to conceal themselves among the reeds, that you may walk past and even over them,

where there are hundreds, without seeing probably a single individual.

The flight of the Rails, while confined among the rice reeds, is low, feeble, and fluttering, with the legs hanging down, as if the effort were unnatural and constrained, which may, no doubt, at times, be produced by the extreme corpulency which they attain in a favourable season for food; yet, occasionally, they will rise to a considerable height, and cross considerable streams without any reluctance or difficulty; so that however short may be their wings, the muscles by which they are set in motion are abundantly sufficient to provide them the means of pursuing the deliberate stages of their migratory course. Wherever the *Zizania* and its nutritious grain abounds, there the Rails are generally seen.

In the reedy lakes of Michigan, as well as the tide-water streams of the Atlantic, these birds are found congregated, in quest of their favourite food. In Virginia, they are particularly abundant along the grassy banks of James River, within the bounds of tide-water, where they are often taken in the night, while perched among the reeds; being stupefied by the glare of a fire carried in among them, they are then easily approached by a boat, and rudely knocked on the head with a paddle; sometimes in such quantities, that three negroes, in as many hours, have been known to kill from twenty to eighty dozen.

Fear seems to be a ruling passion among the whole tribe

of Rails and their kindred allies; with faculties for acting in the day, timidity alone seems to have rendered them almost nocturnal in their actions; their sole address and cunning seems entirely employed in finding out means of concealment; this is particularly the case when wounded; they then swim out and dive with so much caution as seldom to be seen again above water; they even cling with their feet to the reeds beneath that element, where they would sooner endure suffocation than expose themselves with any chance of being seen; they often also skulk, on ordinary occasions, under the floating reeds, with nothing more than the bill above water.

At other times, when wounded, they will dive, and rise under the gunwale of the sportsman's boat, and secreting themselves there, have the cunning to go round as the vessel moves, until, given up as lost, they find an opportunity of completing their escape.

According to the observations of Mr. Ord, the females, more particularly, are sometimes so affected by fear, or some other passion, as to fall into sudden fits, and appear stretched out as lifeless, recovering, after a while, the use of their faculties, and falling again into syncope, on merely presenting the finger in a threatening attitude.

At such times, and during their obstinate divings, they often fall victims, no doubt, to their enemies in the watery element, as they are sometimes seized by eels and other voracious fish, who lie in wait for them; so that the very

excess of their fear and caution hurries them into additional dangers, and frustrates the intention of this instinct for preservation.

The swooning, to which they appear subject, is not uncommon with some small and delicate irritable birds, and canaries are often liable to these death-like spasms, into which they also fall at the instigation of some immaterial or trifling excitement of a particular kind.

During the greater part of the months of September and October, the market of Philadelphia is abundantly supplied with this highly esteemed game, and they are usually sold at from fifty cents to a dollar the dozen. But soon after the first frosts of October, or towards the close of that month, they all move off to the south. In Virginia, they usually remain until the first week in November. In the vicinity of Cambridge (Mass.), a few, as a rarity only, are now and then seen in the course of the autumn, in the *Zizania* patches which border the outlet of Fresh Pond; but none are either known or suspected to breed in any part of this state, where they are, as far as I can learn, everywhere uncommon.

ILLUSTRATIVE ANECDOTES.

The usual method of shooting Rail on the Delaware, according to Wilson, is as follows:—The sportsman proceeds to the scene of action in a batteau, with an experienced boatman, who propels the boat with a pole. About two

hours before high water, they enter the reeds, the sportsman taking his place in the bow ready for action;—while the boatman in the stern-seat pushes her steadily through the reeds.

The Rails generally spring singly, as the boat advances, and at a short distance ahead, are instantly shot down, while the boatman, keeping his eye on the spot where the bird fell, directs the vessel forward, and picks it up as the gunner is loading.

In this manner the boat continues through and over the wild-rice marsh, the birds flushing and falling; the gunner loading and firing, while the helmsman is pushing and picking up the game; which sport continues till an hour or two after high water, when its shallowness, and the strength and weight of the floating reeds, as also the unwillingness of the game to spring as the tide decreases, oblige them to return.

Several boats are sometimes within a short distance of each other, and a perpetual cracking of musketry prevails along the whole reedy shores of the river. In these excursions, it is not uncommon for an active and expert marksman to kill ten or twelve dozen in the serving of a single tide.

THE RUFF. (*Tringa pugnae*.)

THE Ruff (says Mr. Wilson), no less than the family of sandpipers, with which it is associated in the systems, is almost equally given to wandering, being found, according to the season, dispersed in flocks throughout the principal parts of the cold and temperate climates of the northern hemisphere. In spring they arrive in great numbers on the coast of Holland, Germany, Flanders, and England; they are equally abundant in Sweden, occur in Denmark, Norway, Finmark, and Iceland, and breed in the great desolate marshes of Siberia and Lapland, as well as in milder latitudes.

According to Skioldebrand, at Uleaborg, the capital of Ostrobothnia, they arrive in the spring, in such vast flocks, as almost to obscure the heavens, and resting on the floating ice, or on the banks of the rivers, fill the air with their confused cries; and the Ruffs, contending for their mates, appear like a pigmy army of pugilists. My friend, Mr. Cooper, about three years ago, obtained a specimen of the Ruff, from the shores of Long Island. From the rarity of this occurrence, we can only consider the Ruff, on the American coasts, as an accidental straggler; and their visits are probably more common on the western than the eastern side of the continent.

The Ruffs, like most of the birds, bred in high boreal latitudes, are under the necessity of migrating to milder climates, at the approach of winter. These northern hosts

therefore now spread themselves over Europe, and the contiguous continents, until the return of spring invites them again to revisit the north. Different from the birds of the preceding section of this genus, the breeding limits of the Ruff extend from the marshes of England and Holland to the confines of the Arctic circle, and while the mass of the species are driven by the vicissitudes of the seasons to perform extensive migrations for the means of support, others, residing in milder climes, scarcely proceed further, in the course of the winter, than to the sea-coasts in the vicinity of their native marshes. At any rate, it appears certain, that the Ruff, unlike the sandpiper, never wanders into tropical climates. Come from where they may, they appear again in the eastern parts of Great Britain, to which their visits in that kingdom are now wholly confined, about the latter end of April, resorting to the fens of Lincolnshire, the Isle of Ely, and a few other places, which suit their peculiar habits.

In the month of May, the male, besides the red and earunculated face, acquires the curious and ornamental Ruff, which characterizes the breeding season. It is scarcely completed in this month, and begins to fall in the latter end of June. With this singular decoration, he also undergoes a complete change in the rest of his plumage, the colours are more gay and brilliant; there is then a predominance of rufous and purple tints among the others, and the plain and sombre livery of winter is laid aside.

Full of ardour and jealousy, the polygamous Ruffs now seek out the company of the Reeves, and when they have chosen a breeding-place, the males, so remarkable for their irritability, assemble upon some contiguous rising spot of ground, where, like so many professed duellists, erecting the ruff in a threatening attitude, they take their stand at a small distance from each other, and in their sight, combat for the society of their favourite females. This resort for amorous combat is at length so trodden, that the turf appears bare, and this battle-field thus betrays its company to their general enemy the fowler.

The Ruffs feed chiefly by night, repairing to the hill of contest about the dawn of day, and so pugnacious are they at this time, that they will often leap or flirt a yard from the ground, towards some wanderer or company who happen to be passing by; and an imitation of this hostile attitude, by a rudely stuffed bird jerked at the end of a long string, is often sufficient to decoy the passengers to alight in the snare. The pugnacious disposition of the Ruff, according to Mr. Baillon, is exhibited as soon as they appear in April, and before their arrival at their breeding-place. In the marshes of Montreuil-sur-Mer, where he had often occasion to follow them, he remarks, that their first object is to pair, or rather to fight with their rivals, while the feeble screams of the females rouse and exasperate their hostility, and their battles are often long, obstinate, and sometimes bloody. The vanquished betakes himself to flight, but the

cry of the first female he hears dispels his fears, and re-awakens his courage, and he renews the conflict if another opponent appears. These skirmishes are repeated every morning and evening till their departure, in May.

As soon as the Reeves begin to lay, both those and their mates lay aside their wildness and desire of hostility, so that the whole may be caught with little effort. As the attachment of the females to their charge increases, with the progress of incubation, they become still more emboldened in its defence. At length, the period of excitement subsiding, the males, dropping their nuptial plumage, sink into tame and undistinguishable wanderers, and seceding from the Reeves and their brood, depart to their hybernal seclusion, in some distant country.

The females, associated in numbers, commence laying about the first or second week in May, and the young appear early in June. The nest is formed of grass, in a tussock of the same, in the most swampy part of the marsh. The eggs, four in number, very like those of the snipe, as well as the nest, are however larger, of a pale greenish hue, with a great number of small spots and points of dusky and brown. The Reeve is so remarkably attached to her eggs, that after being caught on the nest and carried some distance, on being liberated, she went again to her eggs, as if nothing had molested her. Indeed the attachment and courage of the female for her young, seem scarcely less remarkable than the pugnacious valour of the Ruff.

The Ruffs, esteemed as a most delicate game, are so much sought after in England, as to be almost exterminated from many of their native marshes, and sell, when fattened artificially, at from thirty shillings to two guineas the dozen. They are usually taken in large clap-nets, erected over the mounds that the Ruffs have selected for their daily combats. The fowler, repairing to the spot before daylight, spreads his net, places his decoy birds (which are either real prisoners of the species, or rudely stuffed skins), and takes his stand at the distance of about one hundred and forty yards, or more, according to the shyness of the birds. The net, suspended by poles, and commanded by a rope and pulleys, is at length pulled over its victims, and seldom fails of securing all within its reach.

Although their natural food consists of worms, and insects of the marshes where they dwell, when confined they are fed and fattened on milk and soaked bread, hempseed; sometimes boiled wheat, and to hasten the process sugar is frequently added to the rest of their fare.

THE
BOOK OF ANIMALS.

CANIS—THE DOG.

OF all domestic animals which man has subjected to his control, the Dog alone has become his faithful companion and friend—whose services are ever at the command of his master, and whose fidelity no change of circumstance can estrange; nay, even when spurned and maltreated, it is his generous nature ever to forgive; while his courage and constancy prompt him to brave every hazard of his own life in defending the person or property of the individual to whom he is most attached.

“Training of dogs,” says Buffon, “seems to have been the first art invented by man; and the fruit of that art was the conquest and peaceable possession of the earth. By the assistance of the Dog, man was enabled to hunt such other animals as were necessary to preserve his own existence

and to destroy those which were noxious and the greatest enemies of his race." By day, the Dog is the attendant guardian of his flocks, the agent of his pleasures in the chase, and the willing slave of his necessity, in drawing burdens; while, at night, he is the incorruptible watch, to whose care his master confides in safety; since to him no bribe of the nightly robber would prove an inducement to betray his trust.

The genera of the Dog are very numerous. Buffon names thirty, and admits that there are many more; but he considers the SHEPHERD'S DOG to have been the primitive, or first breed of the race. Of the thirty kinds of Dogs he speaks of, he states that there are "seventeen which may be said to be owing to the influence of the climate," and which he distinguishes thus: the SHEPHERD'S DOG, the WOLF DOG, the SIBERIAN DOG, the ICELAND DOG, the LAPLAND DOG, the IRISH GREYHOUND, the COMMON GREYHOUND, the MASTIFF, the GREAT DANE, the HOUND, the HARRIER, the TERRIER, the SPANIEL, the WATER DOG, the SMALL DANE, the TURKISH DOG, and the BULL DOG; the other thirteen kinds he declares to be mongrel.

All creatures of the Dog kind have claws, but which they cannot sheathe, or draw in, as can animals of the Cat kind.

The largest of the Dog genera is the IRISH GREYHOUND, or WOLF DOG, which has now become rare even in Ireland. Goldsmith says that he has seen a dozen of them, and was shown one, as a curiosity, which "was four feet high, or

as tall as a calf of a year old." These noble creatures were formerly employed in clearing the country of wolves, by which it was once infested.

The MASTIFF is chiefly a native of England; while the BULL DOG is considered to be wholly so, and would lose his spirit anywhere else; even in France, Buffon says, it is difficult to preserve the breed entire. This Dog is chiefly remarkable for his courage, and for his antipathy to the BULL, which he will attack and pinion to the ground by the nose.

The MASTIFF is a large noble animal, docile and intelligent; he is used chiefly as a watch-dog, and well knows, as he faithfully performs, the duties of the office assigned to him.

We must not omit to particularize the NEWFOUNDLAND DOG, so well known in this country for his pleasing countenance, sagacity, and attachment to his master. He is a fine-looking large creature, and is web-footed, which enables him to swim very expertly.

The life of a Dog is about from twelve to fifteen years. He becomes familiar with and assumes the manners of those with whom he lives, towards strangers. In the families of the great, or where he is not accustomed to associate with the humbler classes of society, he will fly at a beggar who may approach the door, and whom he appears to know by his dress, voice, and gestures.

Although, in the forests of America and other desert

places, there are wild Dogs which hunt, in packs, the boar, bull, and even the tiger, or lion, yet they are always to be easily tamed, and will soon become attached to any one who treats them with kindness.

ILLUSTRATIVE ANECDOTES.

The attachment of the Dog to his master becomes a ruling passion, and, united with a retentive memory, has led to some remarkable disclosures of crime. We are told by Plutarch of a certain Roman slave in the civil wars, whose head nobody durst cut off, for fear of the Dog that guarded his body, and fought in his defence. It happened that King Pyrrhus, travelling that way, observed the animal watching over the body of the deceased; and hearing that he had been there three days without meat or drink, yet would not forsake his master, ordered the body to be buried, and the Dog preserved and brought to him. A few days afterwards there was a muster of the soldiers, so that every man was forced to march in order before the king. The Dog lay quietly by him for some time; but when he saw the murderers of his late owner pass by, he flew upon them with extraordinary fury, barking, and tearing their garments, and frequently turning about to the king; which both excited the king's suspicion, and the jealousy of all who stood about him. The men were in consequence apprehended, and though

the circumstances which appeared in evidence against them were very slight, they confessed the crime, and were accordingly punished.

Fidelity to the interests of his master is one of the most pleasing traits in the character of the Dog, and could be exemplified by so many anecdotes, that the difficulty consists in making a proper selection. The following, however, is worthy of commemoration :—

A French merchant having some money due from a correspondent, set out on horseback, accompanied by his Dog, on purpose to receive it. Having settled the business to his satisfaction, he tied the bag of money before him, and began to return home. His faithful Dog, as if he entered into his master's feelings, frisked round the horse, barked, and jumped, and seemed to participate in his joy.

The merchant, after riding some miles, alighted to repose himself under an agreeable shade, and taking the bag of money in his hand, laid it down by his side under a hedge, and on remounting, forgot it. The Dog perceived his lapse of recollection, and wishing to rectify it, ran to fetch the bag; but it was too heavy for him to drag along. He then ran to his master, and by crying, barking, and howling, seemed to remind him of his mistake. The merchant understood not his language; but the assiduous creature persevered in its efforts, and after trying to stop the horse in vain, at last began to bite his heels.

The merchant, absorbed in some revery, wholly over-

looked the real object of his affectionate attendant's importunity, but entertained the alarming apprehension that he was gone mad. Full of this suspicion, in crossing a brook, he turned back to look if the Dog would drink. The animal was too intent on his master's business to think of itself; it continued to bark and bite with greater violence than before.

"Mercy!" cried the afflicted merchant, "it must be so; my poor Dog is certainly mad: what must I do? I must kill him, lest some greater misfortune befall me; but with what regret! Oh could I find any one to perform this cruel office for me! But there is no time to lose; I myself may become the victim if I spare him."

With these words he drew a pistol from his pocket, and with a trembling hand took aim at his faithful servant. He turned away in agony as he fired; but his aim was too sure. The poor animal fell wounded, and, weltering in his blood, still endeavoured to crawl towards his master, as if to tax him with ingratitude. The merchant could not bear the sight; he spurred on his horse with a heart full of sorrow, and lamented he had taken a journey which had cost him so dear. Still, however, the money never entered his mind; he only thought of his poor Dog, and tried to console himself with the reflection that he had prevented a greater evil by despatching a mad animal, than he had suffered a calamity by his loss. This opiate to his wounded spirit, however, was ineffectual: "I am most unfortunate."

said he to himself; "I had almost rather have lost my money than my Dog." Saying this, he stretched out his hand to grasp his treasure. It was missing; no bag was to be found. In an instant he opened his eyes to his rashness and folly. "Wretch that I am! I alone am to blame! I could not comprehend the admonition which my innocent and most faithful friend gave me, and I have sacrificed him for his zeal. He only wished to inform me of my mistake, and he has paid for his fidelity with his life."

Instantly he turned his horse, and went off at full gallop to the place where he had stopped. He saw with half-averted eyes the scene where the tragedy was acted; he perceived the traces of blood as he proceeded; he was oppressed and distracted; but in vain did he look for his Dog; he was not to be seen on the road. At last he arrived at the spot where he had alighted. But what were his sensations! His heart was ready to bleed; he execrated himself in the madness of despair. The poor Dog, unable to follow his dear but cruel master, had determined to consecrate his last moments to his service. He had crawled, all bloody as he was, to the forgotten bag, and, in the agonies of death, he lay watching beside it. When he saw his master, he still testified his joy by the wagging of his tail. He could do no more; he tried to rise, but his strength was gone. The vital tide was ebbing fast; even the caresses of his master could not prolong his fate for a few moments. He stretched out his tongue to lick the hand that was now

fondling him in the agonies of regret, as if to seal forgiveness of the deed that had deprived him of life. He then cast a look of kindness on his master, and closed his eyes in death.

The late Dr. J. Macculloch has related, of his own knowledge, that a shepherd's Dog always eluded the intentions of the household regarding him, if aught was whispered in his presence that did not coincide with his wishes. Sir Walter Scott has told a number of anecdotes of a Dog called Dandie, the property of a gentleman, which knew on most occasions what was said in his presence. His master returning home one night rather late, found all the family in bed, and not being able to find the boot-jack in its usual place, said to his Dog, "Dandie, I cannot find my boot-jack; search for it." The Dog, quite sensible of what had been said to him, scratched at the room door, which his master opened, proceeded to a distant part of the house, and soon returned, carrying in his mouth the boot-jack, which his master had left that morning under a sofa. James Hogg, in his Shepherd's Calendar, declares that Dogs know what is said on subjects in which they feel interested. He mentions the case of a farmer, "who had a bitch that for the space of three or four years, in the latter part of his life, met him always at the foot of his farm, about a mile and a half from his house, on his way home. If he was half a day away, a week, or a fortnight, it was all the same; she met him at that spot; and there never

was an instance seen of her going to wait his arrival there on a wrong day. She could only know of his coming home by hearing it mentioned in the family." The same writer speaks of a clever Sheep-Dog, named Hector, which had a similar tact in picking up what was said. One day he observed to his mother, "I am going to-morrow to Bowerhope for a fortnight; but I will not take Hector with me, for he is constantly quarrelling with the rest of the dogs." Hector, who was present, and overheard the conversation, was missing next morning, and when Hogg reached Bowerhope, there was Hector sitting on a knoll, waiting his arrival. He had swum across a flooded river to reach the spot.

An English officer, who was in Paris in 1815, mentions the case of a Dog belonging to a shoe-black, which brought customers to its master. This it did in a very ingenious, and scarcely honest manner. The officer, having occasion to cross one of the bridges over the Seine, had his boots, which had been previously polished, dirtied by a Poodle-Dog rubbing against them. He, in consequence, went to a man who was stationed on the bridge, and had them cleaned. The same circumstance having occurred more than once, his curiosity was excited, and he watched the Dog. He saw him roll himself in the mud of the river, and then watch for a person with well-polished boots, against which he contrived to rub himself. Finding that the shoe-black was the owner of the Dog, he taxed him

with the artifice; and, after a little hesitation, he confessed that he had taught the Dog the trick in order to procure customers for himself. The officer being much struck with the Dog's sagacity, purchased him at a high price, and brought him to England. He kept him tied up in London some time, and then released him. The Dog remained with him a day or two, and then made his escape. A fortnight afterwards, he was found with his former master, pursuing his old trade of dirtying gentlemen's boots on the bridge.

An anecdote was related me of a Dog in the country, whose natural sagacity had been highly cultivated in his puppy days. Innumerable, almost, were the antics which he could perform, to the great delight of all the children in the neighbourhood, with whom he was an especial favourite. As, however, these were rather the result of hard drilling than sagacity, they are not worth relating. The early training to which he had been subjected had, however, the effect of expanding his powers, and giving a general enlargement to his *intellect*. He acted often as though having a perfect comprehension of language, and as showing the exercise of a reasoning faculty. For instance; one morning I had occasion to borrow an article at a store in the village, and calling at several other places on my way home, I returned to my room. Some few hours afterward, wishing to return the borrowed article, I placed it in "Hero's" mouth, with the direction to take it to the store of Mr. B. I gave the order as an experiment, not much expecting to

be successful, but he received the article readily, trotted out of the room and down the street without hesitation, until he entered the proper store, laid his charge upon the counter, and returned to his master.

As was no more than natural, Hero seemed much interested in every butcher and butcher's cart which came into the neighbourhood of his master's house. By watching attentively the butcher's proceedings, he arrived at the fact that meat could be obtained for money. In some of his wanderings about the house, he found a cent in an exposed situation, and appropriated it to his own use. The next time that a butcher's cart came into the neighbourhood, Hero made his appearance with his prize, and attracting the butcher's notice, dropped the "copper" at his feet, and waited till he had received its value in meat. After this, Hero was supplied very freely with money by the boys and others, all of which he expended in the same way. Once or twice he received a written order for his dinner, and thus made another advance in the knowledge of currency. Finding paper as servicable as copper, he began to think of a currency of his own, and hunting up pieces of white paper in the streets, would carry them to his friend the butcher. A few protests of his paper, however, drove him back to the specie currency, in favour of which he seemed ever after firmly established. Hero, with all his sagacity and all his good qualities, was not without his failings. He was an arrant coward, and lost by this failing many a good

thing which his wit had insured him. There is an old proverb, that "those who know nothing, fear nothing." Hero knew a great deal, and feared everything.

Near to my father's house there lived a retired sea captain, in all the comfort which well earned wealth could afford. He was a good old man, and had ever a kind word and a pleasant smile for me, however often I might meet him. As I think of him now, I cannot very well separate his image in my mind from his little yellow Dog, Tiger, who was always at his heels, excepting on Sunday. I am sorry to say that my old friend was no church-goer, but then Tiger was.

With the females of the family he was always at church on Sunday. When Tiger was well advanced in years and firmly fixed in his habits, his master's family changed their place of worship. To this arrangement the Dog would never conform. Let others go where they might, old associations were too strong with him to be easily dissolved. From puppy days he had attended an Episcopal Church, and in his old age he would not desert it. If Tiger was blameworthy for anything, it was for his *dogmatism* in this matter. When the family left the services of the church, he continued to attend them. Often has he been seen of a pleasant Sunday morning, making himself as comfortable as possible in the warm sun. The first bell would ring for church, but Tiger was unmoved. The second would ring, and still Tiger cared not—it began to toll, and then with

head and tail erect, and with a sober trot, he would start off for church.

A short time since, the daily papers of Philadelphia contained the obituary of a remarkable Dog of the poodle species, which, we think, will please those of our young readers who have not had an opportunity of perusing the newspapers :-

“The mournful duty devolves upon us of recording the sudden and painful death of an old and valued member of the Fire Department. CASSIUS is no more! He whose name and fame were spread throughout this country and Europe, is now numbered with the dead. The event has filled the community with sorrow.

“We have heard of many wonderful tricks performed by dogs, but Cash, as he was familiarly called, exceeded them all in the extent and variety of his knowledge. He had attached himself to the Good Intent Hose, of which company he was a faithful member for a period of about eight years. His ear was singularly acute, as he could hear an alarm of fire before any of the members, of which he gave instant warning by loud barking and springing against the door of the hose house. As soon as the door was opened he would seize the rope in his mouth, leading the way towards the fire, pulling with might and main until ample assistance arrived, when he would relinquish his hold and dash on ahead, anon returning to encourage the men with a loud bark or two, and then dash onward again. He was

always the unerring pioneer to the fire, busying himself until it was subdued, when he would return with the carriage, carrying the director's horn in his mouth.

"Cash had been taught to fall down and pretend to be dead; nor could kicks or coaxing make him show a sign of life. Generally a crowd would gather about his prostrate and apparently lifeless body, to express their grief at his demise, when some one of the members would give a tap on the bell, at which signal Cash would spring suddenly up, scattering the people in dismay to the right and left.

"On one occasion Cash had a very tough and long-contested fight with a Dog that appeared to be his match in every respect. In the midst of the contest, and when it was doubtful which would prove the better Dog, a good-for-nothing little cur ran up and bit Cash severely in one of his hind legs. Satisfied with his valorous behaviour, the little sneak went back to his quarters in his master's door, leaving the two combatants to fight it out. Cash had taken no notice of the bite, but went on with the fight until he whipped his opponent to his satisfaction and compelled him to run off; he then walked deliberately over to the door where the little cur was lying, and, picking him up by the back of the neck, carried him leisurely to the gutter, where he gave him half-a-dozen good shakes, and tossed him indignantly into the middle of the street, as much as to say, 'Take that, you cowardly rascal!'

"Once when there were but few men at the rope, and it

was found impossible to urge the carriage along with any thing like speed, Cash ran on to the side-walk, and taking a gentleman by the coat actually pulled him into the street, at which the terrified man took hold of the rope, and worked like a Hercules, for fear of another attack.

“Only a few days before his death, two of the firemen were endeavouring to turn the cylinder, in order to put on the hose. Cash saw they were unequal to the task, so he ran around the corner, and began to bark to two other members, thus to attract their attention and procure assistance. Knowing the dog, they went around and helped to finish the job.

“He was kind and affectionate in disposition, and particularly good to children, with whom, as in truth with almost every one, he was an especial favourite. To people of colour, however, he had a decided aversion, and would never suffer their approaches. Kind words and good bones were always on hand for Cash, and regret for his untimely end is widespread. It is not certainly known how his death came about, but many believe that he was poisoned by a bad member of one of the rival companies. He died in the midst of his usefulness, aged nine years.

“Poor Cash—good Cash—faithful Cash—human nature is not always gifted with your intelligence! The ruling passion was strong in death. A few minutes before his dissolution, and while writhing with pain, the State House bell struck for fire—weak and exhausted as he was, he

sprang upon his feet, the intelligent eye lighted with its wonted fire—he gave a feeble bark—staggered convulsively towards the door—and fell dead!

“The members of the Good Intent Hose are inconsolable for his loss, and good reason have they so to be, as Cash never missed a fire for eight years. They testified their grief by putting the carriage in mourning, which badge was worn for the usual period of thirty days. Cash has been stuffed and preserved in a beautiful and expensive glass case”

FELIS—THE CAT.

WILD or tame, at home or abroad, in the Cat are always seen the same propensities to rapine and cruelty. The slight and only difference between the wild and the tame Cat, is, that the former is somewhat larger, with longer fur. The wild Cat would have been domesticated if bred in the house, and the house Cat would have been wild if bred in the woods. Like the generality of its ferocious kind—among which are classed the Lion, Tiger, Leopard, Panther, &c., the Cat is treacherous and cruel; ever watchful of an advantage to spring unexpectedly upon its prey, rather than meet an antagonist fairly upon equal terms.

The Cat, like the Dog, is too common amongst us to require any particular description of its form; but it is unlike

that noble animal, in wanting almost every generous and grateful feeling. The treachery of the Cat may be daily witnessed, by the art which it practises in disguising its inclination to plunder. It will sit patiently watching an opportunity to effect its object; yet, while the cook is moving about the kitchen, fear prevents the attempt. But no sooner does she retire, although but for an instant, than with all the artifice of a cowardly thief, the desired booty is seized upon and borne off to some secret corner, where, growling over it with innate rapacity, the selfish animal devours it alone.

Neither is the cruelty of the Cat less conspicuous than her treachery. The delight with which she worries a mouse, before killing it, appears to be heightened by the tortures she inflicts. In the house, she is remarkably clean, and is much more attached to the place in which she is accustomed to dwell, than to the persons who inhabit it; and although she will sometimes show a partiality to individuals, yet her attentions—unlike the sincerity of the Dog—are essayed rather for her own pleasure than to please; and whilst petted on the knee, if the playful pinch be taken offensively, that instant she will unsheathe her talons and turn upon her friend.

Young kittens are amusingly sportive, but their natural gambols are always with extended claws, as though they were about to destroy. A ball, a piece of paper, &c., is seized upon, dashed from them, and again sprung upon in

the playfulness of mock conquest; but they soon turn from this playfulness to prying into every corner of the house. They will smell round about whatever is near to them with an air of suspicion; and may afterwards be seen watching for hours by the side of a mouse-hole, or casting a wistful eye at a bird-cage, since they prey upon anything that is weaker than themselves and unable to resist; whether birds, bats, moles, rats, mice, fowls, &c.—all that they dare to attack they seize upon. They will eat Catmint, Valerian, and some other plants.

Cats when domesticated are very susceptible of cold they are fond of lying upon warm cushions, of basking in the sun, or before a fire, and cannot endure to wet their feet. They have so little of that close personal attachment which distinguishes the Dog, that they will be upon as good terms with strangers who treat them kindly, as with those with whom they had previously dwelt for a length of time.

The Cat usually lives to the age of ten years, and sometimes much longer. Her whiskers are of much use to her, and all animals of her kind have them. These from point to point, are the width of the body, and convey a sense of touch or feeling by which they all know through what space they can pass. If you touch the end of a Cat's whisker with your hand, she would feel it, although the whisker itself is not sensitive, but incapable of feeling; yet in touching anything with her whiskers as she passed along, she would feel, in her upper lip, that she had done so. In

common with all animals of her kind, she is also furnished with claws, which she can sheathe at pleasure. Although, when we caress a favourite Cat, we show a partiality towards a creature possessing the very nature and propensities of the tiger, yet we must not forget that Puss is no more deserving of blame nor reproach for this, her natural disposition, than for the colour of her skin.

It has pleased the Great and Wise Disposer of all things, that those animals of the Cat kind which possess the most formidable powers of destruction, should be the least numerous, as lions, tigers, &c.; while those are the most plentiful which can do the least harm, as the Cat herself. Besides, she is very useful in her station; and has become, to a certain extent, a domestic dependant in every quarter of the civilized world; whereas lions, and other beasts of prey, have long since been banished by man from the neighbourhood of his habitations. The skin of the Cat is prepared for use by the furrier.

ILLUSTRATIVE ANECDOTES.

ALTHOUGH Buffon only speaks of the male Cat devouring young kittens, we must add that the female will sometimes destroy her own young. In the house wherein we are now writing, there is a Cat which has had several litters, and of which she has suffered one kitten only to live. She bites off the tails, feet, &c., of her brood as soon as she has them.

so unnatural is the creature's ferocity in this respect; she is unsociable and cowardly in the extreme—even more so than those of her race generally are—although she is a favourite with her mistress and well taken care of.

Goldsmith says that Cats in a domestic state “have been known to acquire a considerable degree of sagacity, so as to learn to open doors, by pressing upon the latch:” a book-binder, of London, has a Cat that, when he would go into the kitchen and the door is shut, springs from the floor to the latch, upon which he places one paw, and presses it down; while with the other he hangs upon the handle, from which, as the door flies open, he then drops. To those instances of “their strong attachment to man,” to which the above-named writer alludes, we cannot speak, never having seen anything further than a comparatively slight degree of preference evinced;—never, like the Dog, to show an anxiety to quit the house with its master or mistress, nor to express uneasiness at their absence from home.

In Waterloo Place, London, we have often seen a variety of animals, which mostly live at variance with each other, exhibited in one large cage by a man who shows them in the open air, together. There are brown and white mice, an owl, various small birds, a rabbit, fox, &c., besides which there was a fine large Cat and a kitten, all appearing to live together in the greatest harmony. We have actually observed a sparrow perched upon the owl's head, while a mouse was running over the back of the Cat. The latter

had certainly nothing to prevent her gratifying her natural propensity to destroy, had she felt an inclination to do so, her master withdrew her from the cage, while we examined her mouth and claws, which she was at liberty to use, but in so much as her education might have taught her, and her fellow prisoners, to live together in peace; and certainly the small birds and the mice appeared to fly and run about as much at their ease as though neither fox, owl, nor Cat, had been of their community.

It has been observed that Cats have generally a great antipathy to wetting even their feet; but there were two very large males, which were called garden Cats, as they were kept out of doors in the summer season; and in the garden (belonging to an Inn) where they ranged, was a canal, into which we were assured both would plunge after prey, if they saw it swimming.

Cats may be taught some tricks, as jumping over a hand held before them, which we have seen them do; but the cruelty exercised upon them by those who seek to obtain a livelihood, by showing their unnatural acquirements, in imitation of human vocations, deserves no other reward than reprobation and contempt.

EQUUS—THE HORSE.

“THE noblest conquest ever made by man over the brute creation,” says Buffon, “is the reduction of this spirited and haughty animal.” His symmetry of form, strength, swiftness, and docility are well known; yet, the slave of man, his best energies are readily devoted to the service of his master. In war he is courageous; and, trained to its discordant clamour, the shrill blast of the trumpet and the clash of arms inspire him with ardour to engage in the fight. He is a willing participator in the pleasures and fatigues of the chase; and, as the domestic drudge, he toils with patient perseverance to the very uttermost of his strength and ability. Is it not then shocking to see so noble a brute treated with wanton tyranny by brutes in human shape? Cruelty in any case evinces a callous depravity of mind; but exercised towards an animal so generous in its nature as the Horse, it appears in the highest degree inhuman; nor can we believe that he who derives any pleasure in ill-treating him, would not feel a similar gratification in torturing one of his own species, had he the power of doing so with impunity.

Horses vary in size according to their breed and country. We have seen two of these animals exhibited at different periods in London, the one remarkable for its extreme height, the other no less so for its diminutiveness. The former eighteen hands high, that is, six feet in height, from the withers (or top of the shoulders) to the hoof; the latter

scarcely eight hands, or thirty-two inches. It is characteristic of animals of the Horse kind to have their hoofs in one solid piece.

The wild Horse was known by the ancients to inhabit the forests of Europe, Asia, and Africa. In America, indeed he was an entire stranger until introduced by the Spaniards; where the natives at first believed that the Horse and his rider were one animal only, and fled at the sight of so terrific a monster.

Wild Horses, however, have disappeared wherever population has become abundant. In Europe, therefore, they are no longer to be found; but in Mexico and in the Western States, the descendants of those introduced by the early settlers have become so numerous as to be seen in herds of several thousands. The natives take these animals by stratagem as they require them, by throwing a rope with a noose (called the lasso) over them. While they are sleeping or feeding, one of the herd always acts as sentinel, and gives notice of the approach of an enemy by loud snortings, upon which they fly off at full speed.

These, however, from their origin, can scarcely be called a wild breed of Horses. It is in the deserts of Africa and Asia where the native wild Horse ranges;—the courageous barb—the beautiful Arabian, although it may perhaps now be truly said, that in all the great variety of this noble order of animals there is not a more perfect model in the world than the Race-Horse.

To those who treat him with kindness, the Horse soon becomes attached. He will stretch forth his neck for the collar; and, however tired with the toils of the day, when returning home he is aware that he is advancing towards his resting-place, and exerts himself with persevering energy to reach it. The Bedouins, or Arabs of the desert, are so attached to their Horses that they seem to consider them as members of their family, allow them to inhabit the same tents as themselves, and share their caresses with their wives and children.

The Horse is said to live about twenty years; but whatever may be the usual age, we think he would live much longer, if kindly treated and not over-worked. We have a neighbour who has a favourite mare, which he has been in the habit of driving for the last thirty-two years; although it is probable that had she been the property of any one who had over-worked, or otherwise ill-treated her, she would have died twenty years ago.

The age of a Horse is known by its teeth until seven years old, but after that period there is no accurate method of ascertaining it.

Before he is regularly employed, it is usual in all civilized countries to "break" him, as it is termed; that is, to teach him to regulate his paces and direct his course according to the will of his master, as indicated by the bridle.

ILLUSTRATIVE ANECDOTES.

WE have already alluded to the method of taking the wild Horse in the forests of South America, by throwing a cord (called a lasso) over him, which is effected by men mounted on domesticated Horses, that have been trained to the business. Once made a prisoner, and kept for a couple of days without food or drink, he soon becomes tame and is broken-in; but if not closely watched, he will escape to his friends of the forest, and yet he will afterwards allow himself readily to be taken. Several instances have been known of persons who have met with their tamed runaways in the herd, which after a long absence have come up to them, again to receive their caresses—and have again become their willing slaves. By some travellers it is asserted, that the wild herds endeavour by stratagem to seduce tame horses to join their community.

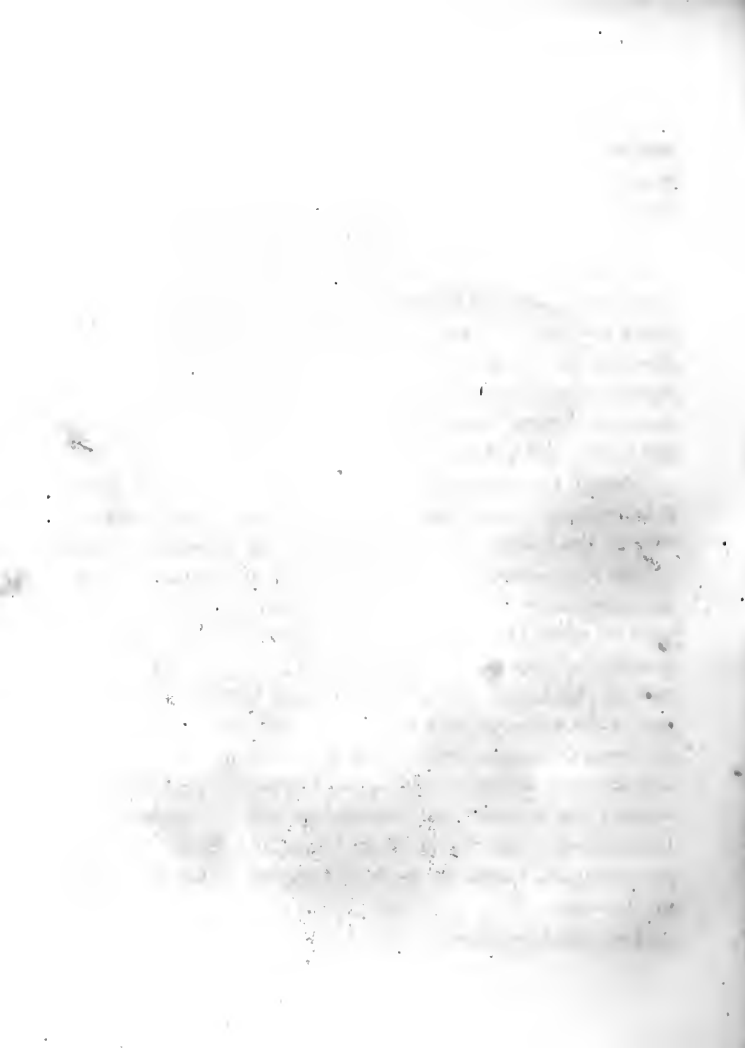
We, some years since, saw the favourite charger of Buonaparte; he was a handsome white barb, scarred with many wounds, which the groom stated him to have received in various battles; and who said also that, since he had lost his master, he would not allow any stranger to mount him; permitting only the groom himself the honour of doing so, who always spoke to the animal in French, and whose commands were readily obeyed. He would bid him to retire, to lie down, to rise, and show how he fought in

the service of Buonaparte; and how he shared his provisions when they were scarce. After obeying the previous commands of the groom, he would, in obedience to the last, show how he shared his food, by going to a pail of water, in which there was a cleanly scraped carrot, and taking the end of it in his mouth, he would bring it to the groom, into whose mouth he placed the other end, and then bit it in two, eating his own portion only.

Occasionally equine attachment exhibits itself in a light as exalted and creditable as that of the human mind. During the peninsular war, the trumpeter of a French cavalry corps had a fine charger assigned to him, of which he became passionately fond, and which, by gentleness of disposition and uniform docility, equally evinced its affection. The sound of the trumpeter's voicé, the sight of his uniform, or the twang of his trumpet, was sufficient to throw this animal into a state of excitement; and he appeared to be pleased and happy only when under the saddle of his rider. Indeed he was unruly and useless to everybody else; for once, on being removed to another part of the forces, and consigned to a young officer, he resolutely refused to perform his evolutions, and bolted straight to the trumpeter's station, and there took his stand, jostling alongside his former master. This animal, on being restored to the trumpeter, carried him, during several of the peninsular campaigns, through many difficulties and hair-breadth escapes. At last the corps to which he belonged was worsted,



GILBERTA. GIBSON



and in the confusion of retreat the trumpeter was mortally wounded. Dropping from his horse, his body was found, many days after the engagement, stretched on the sward, with the faithful charger standing beside it. During the long interval, it seems that he had never quitted the trumpeter's side, but had stood sentinel over his corpse, scaring away the birds of prey, and remaining totally heedless of his own privations. When found, he was in a sadly reduced condition, partly from loss of blood through wounds, but chiefly from want of food, of which, in the excess of his grief, he could not be prevailed on to partake.

Though Providence seems to have implanted in the Horse a benevolent disposition, with at the same time a certain awe of the human race, yet there are instances on record of his recollecting injuries, and fearfully revenging them. A person near Boston (Mass.), was in the habit, whenever he wished to catch his Horse in the field, of taking a quantity of corn in a measure by way of bait. On calling to him, the Horse would come up and eat the corn, while the bridle was put over his head. But the owner having deceived the animal several times, by calling him when he had no corn in the measure, the Horse at length began to suspect the design; and coming up one day as usual, on being called, looked into the measure, and seeing it empty, turned round, reared on his hind legs, and killed his master on the spot.

The attachments which the Horse will form, when sepa-

rated from his own kind, are often curious and inexplicable, showing how much the whole animal creation, from man himself to the humblest insect, is under the influence of a social nature. "Even great disparity of kind," says White, "does not always prevent social advances and mutual fellowship; for a very intelligent and observant person has assured me, that in the former part of his life, keeping but one Horse, he happened also on a time to have but one solitary hen. These two incongruous animals spent much of their time together in a lonely orchard, where they saw no creature but each other. By degrees an apparent regard began to take place between these two sequestered individuals. The fowl would approach the quadruped with notes of complacency, rubbing herself quietly against his legs, while the Horse would look down with satisfaction, and move with the greatest caution and circumspection, lest he should trample on his diminutive companion. Thus, by mutual good offices, each seemed to console the vacant hours of the other; so that Milton, when he puts the following sentiment in the mouth of Adam, seems somewhat mistaken—

Much less can bird with beast, or fish with fowl
So well converse, nor with the ox the ape."

The docility of the Horse is one of the most remarkable of his natural gifts. Furnished with acute senses, an excellent memory high intelligence, and gentle disposition,

he soon learns to know and obey his master's will, and to perform certain actions with astonishing accuracy and precision. The range of his performances, however, is limited by his physical conformation: he has not a hand to grasp, a proboscis to lift the minutest object, nor the advantages of a light and agile frame; if he had, the monkey, the dog, and the elephant, would in this respect be left far behind him.

It has been before remarked, that the Horse is inferior to none of the brute creation in sagacity and general intelligence. In a state of nature, he is cautious and watchful; and the manner in which the wild herds conduct their marches, station their scouts and leaders, shows how fully they comprehend the necessity of obedience and order. All their movements, indeed, seem to be the result of reason, aided by a power of communicating their ideas far superior to that of most other animals. The neighings by which they communicate terror, alarm, recognition, the discovery of water and pasture, &c., are all essentially different, yet instantaneously comprehended by every member of the herd; nay, the various movements of the body, the pawing of the ground, the motions of the ears, and the expressions of the countenance, seem to be fully understood by each other. In passing swampy ground, they test it with the fore-foot, before trusting to it the full weight of their bodies; they will strike asunder the melon-cactus to obtain its succulent juice, with an address perfectly wonder-

ful; and will scoop out a hollow in the moist sand, in the expectation of its filling with water. All this they do in their wild state; and domestication, it seems, instead of deteriorating, tends rather to strengthen and develop their intelligence.

The Arabians try the speed of their Horses, by hunting the ostrich—the bird endeavours to reach the mountains, running along the sands with great rapidity, assisted in its efforts by flapping its wings. A Horse, however, possessing the highest quality of speed, is enabled to come up with it; when the poor creature hides its head in a bush, or wherever it can, and is quietly taken. By this criterion the hunter rates his Horse; and as the animal evinces his speed and perseverance in the chase, his master estimates his value. The Arabs accustom their Horses to fatigue, and give them milk which enables them to bear it.

The late Major Denham, in speaking of the regret he felt at the loss of his favourite Horse, in the Desert of Central Africa, says, “The poor animal had been my support and my comfort; nay, I may say my companion, through many a dreary day and night; had endured both hunger and thirst in my service; and was so docile, that he would stand still for hours in the desert while I slept between his legs, his body affording me the only shelter that could be obtained from the powerful influence of a noon-day sun; he was the fleetest of the fleet, and ever foremost in the chase.”

ASINUS—THE ASS.

THIS animal is of the Horse tribe, although of a distinct species. Unfortunately, instances are not rare of the Horse being ill-treated; but his usual fate is much better than that of the Ass, which is the most patient, frugal, forbearing, and ill-used creature ever forced into the service of a tyrant ruler.

Of the Ass so little care is taken that, where he is rewarded according to his merits, it is an exception, and not the rule of his treatment. Unlike the Horse, no education is bestowed upon him, to improve his naturally excellent qualities. In certain diseases, Asses' milk is prescribed as the most effective remedy; and then only is the Ass permitted to join the ranks of other quadrupeds of the great, from which at all other times his family are excluded. They are usually the unpitied servants of the most unfeeling of masters;—who overload, almost starve, and cruelly beat them, as though they deemed it a merit to inflict, with the rigorous cruelty of despotic power, the full force of their inhumanity upon these, their friendless and enduring slaves.

It has been truly said that the Ass would be deemed one of the most useful and beautiful of domestic animals we have, were the Horse not in existence. Yet, holding the second rank, he is degraded by comparison with the first; and hence the contempt with which the Ass is considered,

because he is inferior to the Horse. Let it, however, be remembered that, had the same art been bestowed upon the former as upon the latter of these useful creatures, although it would not have given him the swiftness and grace of the Horse, it would have rendered him a far superior animal to that which we now find him.

Humble in his appetite, he is content with a moderate portion of food, and that portion of the coarsest kind, which the Horse would reject. He prefers the clearest water, of which he drinks sparingly. He likes to roll on the grass, or in the road where it is dry; but he will avoid, where he can, wetting even his legs. His skin is hard and dry, owing to which cause he is less troubled with vermin than other hairy animals; but his voice is particularly harsh when he brays. His sight is good, and his sense of smelling and of hearing, also, are acute; and such is the attachment of the mother to her foal, that, as Buffon, quoting Pliny, says, when it is taken from her, she will pass through fire to recover it. The Ass lives as long as the Horse, from about twenty to thirty years; and, where he is kindly treated, sometimes to a still greater age. The skin of the Ass is used for many purposes.

The Wild Ass is to be found in plentiful herds in Arabia, Numidia, the Archipelago, and South Africa; and of these some are most beautiful in form, and swifter than the fleetest horse. By the Persians, &c., their flesh is prized as a delicacy; but the untameable disposition, however, of

these animals, seems fully borne out by many passages in Holy Writ:—"A Wild Ass used to the wilderness, that snuffeth up the wind at her pleasure."* "Who hath sent out the Wild Ass free? or who hath loosed the bands of the Wild Ass? He scorneth the multitude of the city, neither regardeth he the cry of the driver. The range of the mountains is his pasture, and he searcheth after every green thing."†

ILLUSTRATIVE ANECDOTES.

THE Ass, when young, is vivacious and full of play; it becomes attached even to an unkind master, but, of course, still more so to any one by whom it is kindly treated. We know a gentleman who had a pet Ass, and who assured us it would always attend the dairy-maid to milk the cows (one of which we shall have occasion particularly to notice hereafter), placing its head under her arm; and, if any one offered to interrupt them on their way, *Miss Jenny* would give him a playful, but somewhat unceremonious bite. The next morning we went to see the cows milked; and, sure enough, saw *Jenny* canter after the milk-maid, and thrust her head under the girl's arm, who, putting it against her hip, formed a resting-place for the creature's jaws. As they thus walked along the meadow, we offered to pat *Jenny* on the head; but, snatching it aside, she

* Jeremiah, ii. 24.

† Job, xxxix. 5-7-8

made a snap at the proffered hand, which was hastily withdrawn, when the animal directly assumed its former position.

At Fakenham, many years ago, an old dame was frightened almost out of her wits by a young Ass which had lost itself, and trotted after her across a foot-path field, in the hope of finding a protector. It was night; and the good woman, alarmed at hearing something follow her, without allowing herself to think what it might be, thought only that it *must* be something very terrible. She frequently stopped to listen to the footsteps she heard, which were *approaching* nearer towards her; but when she halted, the little wanderer stood still also; and the instant she moved, again it followed her—pat, pat, until she reached her own cottage, where she swooned from fear. The cause of her alarm was, however, soon discovered, and afterwards became a favourite domestic of the family. This fact has formed the subject of one of Bloomfield's Poems, entitled the "Fakenham Ghost."

We once saw an Ass that carried vegetables about the streets, which would follow its master like a dog; and, when relieved of its accustomed burden, and at perfect liberty, it used frequently to do so. We have seen it strive to enter a house after him; nor would it move from the door until he came out. On questioning the man, he said, that when the Ass was feeding on the common, "it would *smell* him out" if he were near at hand, and would gallop after him immediately, "for he always treated him well."

Bos—THE OX.*

THE OX has undoubtedly become the most useful of all domestic animals, inasmuch as any other could be better spared. The horse, independent of his usefulness, contributes to the pleasures of the rich; but the cow is in herself the poor man's treasure. Her milk affords the most wholesome nourishment, of which butter and cheese are made; her calves supply us with veal when they are killed young and with the finest beef when they are bred up to maturity. The horns are manufactured into various utensils and ornaments, such as drinking-cups, combs, knife-handles, &c., and her hide supplies us with leather; nor can we omit here to notice, that this excellent creature yields the matter with which infants are inoculated, and by which providential discovery (made by the late Dr. Jenner), the dreadful ravages of the small-pox have been effectually checked.

The hoofs of all animals of the Ox kind are cloven, or divided into two parts, instead of being solid like those of the horse. Their horns are hollow, and they never shed them, as stags do; and another very remarkable peculiarity is, that they ruminates, or chew the cud.

The Bull is a fierce and haughty-looking animal, very muscular, with a short thick neck and large dew-lap; and never ought to be placed in a field through which there is a

* The term *Ox* is applied to the species generally.—BUFFON

public foot-path, since he is often capricious, and will then attack any person whom he may happen to see. He possesses great strength, and when enraged is uncontrollable, bellowing and tearing up the ground. The larger breeds of English horned cattle stand nearly as high as an ordinary horse, but are much stouter made, and are used for draught, as they are patient and strong.

The Ox ruminates, or chews the cud, as already observed; and perhaps some of our young readers have often been surprised to see a creature chewing when it appeared to have nothing to eat. But they are to understand, that every animal which does so has four stomachs, of which they fill the largest with the herbage they crop; and when they have done this, you may see them, in the richest pasture, lie quietly down to chew the cud, by which means they are enabled to pass their food from one stomach to another, until it is properly digested.

There are also of the Cow tribe, the Urus (which runs wild in the forests of Lithuania, and which varies the least, although it grows to a very large size), the Buffalo, the Zebu of India, and the Bison of North America. The three latter have all humps upon their shoulders; but of these the Buffalo and Zebu, although inhabitants of the forest, are tameable, and are used both for draught and carrying burdens. The Zebu is not so large as the ordinary Cow; and, according to Goldsmith, partakes of some of the attributes of the hog. There are, however, two kinds

of this animal, one of which is much smaller than the other. The Buffalo is about the size of the Ox, but of more clumsy appearance, and has remarkably long horns, which sometimes form a wide circle, while others stand almost erect. We have seen a pair of these animals which were used in drawing a hearse in India: they were two of the largest that we ever saw, and were perfectly white. In a wild state the Buffalo is a most ferocious enemy to contend with; when once excited he can run fast, and is a good swimmer.

Of the Bison, another species of the same family, we shall speak hereafter, in a distinct notice of that animal.

ILLUSTRATIVE ANECDOTES.

OF all the brutal exhibitions permitted to the thoughtless and the cruel, that of torturing dumb animals is the most demoralizing and disgraceful. We were once passing a rocky eminence where an assemblage of idle people had met for the purpose of baiting a Bull. The poor creature was tied to a stake, and appeared to be perfectly tame and quiet; when, just as they were about to set a dog to worry him, his master, probably to cause excitation, struck him with a stick. The animal had, until that instant, stood passively by his side; but then, regardless of the dog, he turned to the man, whom he caught upon his horns, and tossed him several yards into the air. He fell heavily upon

the ground, and looked the picture of death; but, wonderful to say, he had received no further injury than a few bruises.

We can scarcely imagine that the calf of a Buffalo possesses more sagacity than the calf of one of our own Cows; but in the Island of Java, we have seen a native followed, in the cool of the evening, by a drove of tame Buffalo calves, which we did not think to be more than six weeks or two months old, into a fresh stream, and in which they, each striving to be foremost, bowed their heads to him, most significantly, that he might throw the water over and rub them.

The method of driving some of their draught Buffaloes at Madras, appeared odd to Europeans; the Gentoo who directed them, instead of walking by their sides, would place himself between one of his beasts and the pole which separated them, as though an English carter were to place himself between one of his oxen and the pole of his wagon.

The tame Buffaloes which are yoked to carts in India, frequently have a ring, or cord, run through their noses, in the same way as the Brahmin Bulls in the Zoological Gardens, and appear to be very docile. We had a score of wild ones brought on board a ship we were in, as food for the sailors; but they became tame enough from the time they felt themselves restrained, and grew very thin. The Buffaloes used in Italy, mingle with other cattle, and often lose the hump on their shoulders altogether.

Ovis—THE SHEEP.

THE external appearance of the Sheep, like that of other common animals, is too well known to require a description. He is one of the most useful servants of man, supplying him with nutritious food and warm clothing; and is a domestic inhabitant almost everywhere.

The Sheep, and its kind, chew the cud, and those of Africa have such an immense lump of fat growing on their tails, that a board with wheels is sometimes made for it to rest upon; they all have cloven feet.

The finest wool is that which is obtained from the Spanish Sheep; since, although the breeds have been greatly improved in England, the wool is not so fine as that of the Merino kind.

Although the male will sometimes act upon the defensive when attacked, and, perhaps, may occasionally display a petulance of temper towards other objects, still, of all quadrupeds the Sheep has the least resource in himself from instinct. The noise of a child will scare a whole flock, which would offer no resistance to any hostility he might evince, and when alarmed by an imaginary danger, they display no instinctive caution in their efforts to avoid it, while all their movements are regulated by the Shepherd and his Dog. The age of the Sheep is about ten years.

It is, however, a gross error of naturalists who suppose,

from the timidity of the Sheep, that he is insensible to kindness, or, "rather formed for slavery than friendship." The same kind of language is applied by every tyrant to the slave he has made; and we must take leave to deny the assertion of Goldsmith, that the pet Lamb "shows itself in every way unworthy of being singled out from the rest of the flock." Art has reduced the Sheep from his natural state, to an entire dependence on man; and the same writer admits, as the "marks of human transformation are more numerous, the animal becomes more helpless and stupid."

The strongest instance of attachment we ever knew of in a Sheep, or rather Lamb, was in one of several which we bred by hand. They were all partial to those whom they were accustomed to see; would follow them anywhere, play with the children, and stand bleating at the door when they were denied admittance. One of these pets had followed two boys of the family who tried to drive it back in vain; it watched their motions, and still followed them, bleating, at a distance. The lads had to cross a stream to get into a meadow, which they could only accomplish by assisting each other over some stakes or piles. No sooner, however, had they crossed the stream, than the Lamb galloped to the water's edge, bleating most piteously; and, despite of the threatening gestures of the boys on the other side, plunged in after them. With much difficulty they succeeded in getting her out; but they were obliged to return and allow her to follow them home.

HIRCUS—THE GOAT.

THE Goat is a vivacious and agile animal, handsome in form, with horns and a flowing beard; of the size of the sheep, but less bulky; ardent, vigorous, and of a capricious temper. He is easily attached to man, but he is fond of choosing his own food; he prefers the barren heath and cragged eminence to the richest lowland pasture; and as his hoof is hollow, with a sharp edge, he is enabled to climb the tops of rocks and precipices, where, in conscious security, he will stand upon the very brink of destruction.

Although not so much prized as the sheep, he is a most useful animal, and in many countries Goats are tended in flocks; since, though the expense of keeping them is very small, their flesh is considered excellent by those who breed them: their milk is nourishing, of which butter and cheese are made; besides which it is used medicinally; and their fat, hides, and hair, are valuable articles of commerce.

Although of the Sheep kind, the Goat is much more sagacious; he sees a threatened danger and avoids it, or defends himself to the utmost of his power.

Young kids are pretty playful creatures, and become naturally fond of man; in proof of which, Buffon relates the following anecdote. In 1698, an English vessel touching at Bonavista (one of the Cape de Verd Islands), two Negroes offered the Captain as many Goats as he chose to

carry away. On his expressing surprise at this, they told him there were (then) only twelve people on the Island, and that the Goats were so numerous, and so troublesome, there was no such thing as keeping them from following the inhabitants whithersoever they went. It is of Goat-skin that Morocco leather is manufactured.

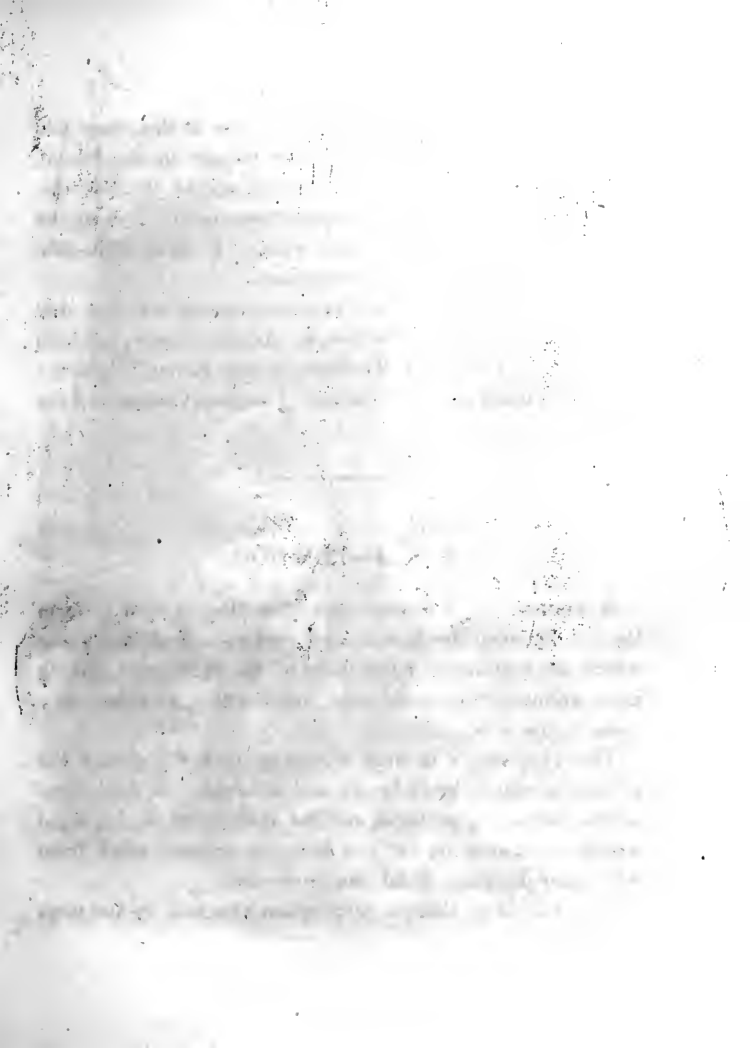
Of Goats there are many varieties, among which is that of Angora (a town of Natolia, in Asiatic Turkey), which is beautifully white; the Moufflon, or wild Ram of Tartary; the long-horned Ibex; the bounding elegant Chamois of the Alps, &c.

PORCUS—THE HOG.

ALTHOUGH of a distinct race, the Hog is said to form the link between the animals that live upon flesh, and those which are sustained by the fruits of the earth only; living upon animal or vegetable food, indifferently, as either may come in his way.

The Hog varies in size according to his food and the climate in which he is bred; and although the wild Boar of the forests is, perhaps, smaller than some of his kind which are reared by art, yet he is the original stock from which our domestic breed has proceeded.

The wild Hog, though fierce when attacked by the dogs





of the hunter, is nevertheless disposed to live quietly and lazily, if allowed to do so; nor will he even seek to attack another beast as his prey, but content himself with roots and herbage, and such bodies of animals as he may find dying and unable to offer resistance; or he will be satisfied with any dead carcass;—however long it may have lain, he cares not, as he is not so particular in the quality as in the quantity of his food, preferring the rankest carrion to the trouble of seeking his prey alive.

The sympathy of the Hog for those of his kind may be every day witnessed in his responsive gruntings, and the anxiety he shows at their distress. We once saw an instance of this, where a Hog had been mortally injured and lay gasping for breath, while its companion ran round it in the greatest anxiety, squeaking aloud as though itself had been hurt; and as the voice of its brother and fellow-inhabitant of the same sty, ceased, the creature threw itself upon its dead friend, and was obliged to be driven off.

CERVUS—THE STAG.

ANIMALS of the Deer kind are chiefly distinguished by large branching horns which, unlike those of the Cow or Sheep, are not hollow, but solid, which they shed every year; their feet are cloven, and they chew the cud.

The Stag is a graceful and elegant-looking creature, of about the size of a full-grown Ass; with a beautiful neck, soft and sparkling eyes, and large round horns, from which, after he is two years old, smaller ones sprout and are called *antlers*, increasing in number every year for many successive years, and by which his age is estimated. His strength and speed are great; he feeds with the herd, and lives to about forty years. He is, at six years old, called a Hart; the female, which has no horns, is called a Hind; and the young one a Calf. His appetite is delicate, and he is fond of bathing in a cool stream.

The Stag, in almost all ages and nations, has been a general object of chase. In the time of the Saxons, in England, the pursuit was an exclusive privilege of royalty, and it was afterwards so restricted by vigorous laws in the time of the Norman Kings; but the right was soon extended to the Barons, to the great prejudice of agriculture and property in general.

ILLUSTRATIVE ANECDOTES.

ALTHOUGH the Stag is generally timid, and more particularly the female, yet, when she has young, she will endeavour to defend them by force from all weaker enemies. When pursued by the hunter, she misleads him from the retreat she has chosen for them; and if she chance to escape, she will return to them with caution. She is

compelled to hide her young ones even from the Stag himself, who would otherwise destroy them with his horns.

The Stag, when pursued, tries by every art to mislead his enemies; as he becomes exhausted with running, he seeks the herd and endeavours to mingle with it in the hope of an escape,—but in vain; his unfeeling companions frustrate all his attempts to join them; they now shun him in his distress, and will even turn upon and drive him from among them if he persevere. Thus compelled again to fly, he takes to a high-road, that the Dogs may not be able to scent his footsteps (as in the grass), but growing still weaker, his mouth becomes parched, his tongue hangs out, and the tears actually run down his cheeks, as though he felt that there was no hope for him of escaping destruction; as a last resource, he plunges into the first stream he can find; but still pursued, he makes the only despairing effort in his power, and turns upon his pursuers, whom he attacks with both horn and hoof (should his horns have been left to him), and he sometimes strikes those within reach of them, dead at his feet; but he is soon surrounded by the whole pack, when the huntsmen wind what they call a *treble mort* on their horns, which, though musical to themselves, is the death-knell of the poor Stag.

We have seen the huntsmen *toil* a Deer, or catch him, preparatory to the day appointed to turn him out for the amusement of the gentry. He was chased by a few well trained Dogs from the herd, which, as usual, refused to

acknowledge him ; but seeing so few enemies, he soon plunged into the water, where, without expressing alarm, he deliberately stared at them ; the Dogs, which were restrained by long cords, not being permitted to attack him in the pond ; and as they approached him he moved towards the bank, when a rope was thrown across his horns, which, after he was drawn out, were sawed off, and he was carried from the field in a cart van.

The FALLOW DEER has palmated, or flat horns ; but with this exception he resembles the Stag more than all others of their kind, although smaller ; but between which there appears to exist a strong animosity, frequent battles for pasturage occurring between them, nor will they ever herd together. The Fallow Deer is a kind of Domestic ranger of the Parks ; the male is called a Buck, the female a Doe, and the young one a Fawn.

The ROEBUCK is about two feet high, and the smallest of the Deer class known to our climate. It does not associate in herds ; the male, female, and their young ones feeding and living in harmony together in distinct families ; the two former always remaining attached to each other.

The flesh of the Deer is called venison, and is esteemed a delicacy ; the horns and skins are articles of manufacture. Of the varieties of this kind we shall particularize a few others.

THE MOOSE, OR ELK.

THIS is the largest of the Deer tribe, varying in size, however, according to the climate in which he is produced; since he is not only to be found in Germany and Russia in Europe, but also in the high latitudes of North America and Siberia—in the latter place he attains to his extreme growth.

In America, &c., he is called the Moose Deer; in Europe the Elk. His usual height and bulk are equal to those of an ordinary horse; varying, however, to the stupendous magnitude of double that size; or, as we are assured by some travellers, to the height of ten or twelve feet. The colour of the smaller kind is gray, and of the latter black; their horns are flat and broad like those of the Fallow Deer, and are sometimes of an enormous size. Goldsmith says he saw some which had been dug up in Ireland that measured “ten feet nine inches from one tip to the other.” The animal must have been of a gigantic form to which such horns belonged. Their tails are very short, and their nostrils remarkably wide.

The Moose feeds upon the tops of large plants and leaves in the summer; and in the winter when the ground is covered with snow, he contents himself with the bark of trees; since it is necessity alone which can induce him to bring his mouth to the ground, which must be a work of pain to him wing to the great length of his limbs and the extreme

shortness of his neck. He is a good swimmer, and delights in bathing; and in the hot weather he will sometimes remain in marshes to avoid the mosquitoes, as long as he can get any kind of herbage in that situation. Dr. Richardson says that "he is the most shy and wary of all the Deer species;" and that it selects a place of repose where "it can hear the least noise made by any one that attempts to track it."

It is in the winter season that the hunter most prides himself in his skill in the chase; to which, and his perseverance, the Moose falls a prey, when the sun melts the snow by day, which freezes again at night. The Indians pursue the flying creature, which, sinking beneath the surface of the snow, or thin ice, is thus impeded in his efforts to escape, while his immense horns come in contact with the branches of trees, which are, however, snapped off as he proceeds. But though the chase last for a whole day, and sometimes for three or four, the persevering Indians at length come within reach of him with their lances; when he is sure to fall, and thus becomes a valuable prize to his captors, who eat his flesh, and use his hide and horns for various useful purposes.

THE WAPITI.

THIS animal is often, although very erroneously confounded with the Moose; but they are of distinct genera, nor do they ever mingle together.

The WAPITI, or Canadian Stag, is a native of Canada; and, in herds of six or seven, Dr. Richardson tells us "they feed on grass, on the young shoots of willows and poplars, and are very fond of the hips of the *rosa blanda*, which forms much of the underwood of the districts which they frequent." The height of the Wapiti is about from four and a half to five feet at the shoulders, being of the size of an ordinary horse, although somewhat less bulky; his legs, however, are more slender, his whole frame showing him to possess great powers of strength and swiftness; his horns are of an immense size and weight, measuring from three to four feet in length: he is of a dark fawn colour, with a large round white mark on the hinder part. His flesh is said to be somewhat hard, and not delicate eating; but his skin makes excellent leather of great pliancy. He is gentle and very docile; and is by the Indians used as a beast of burden.

Some years ago we saw two of these creatures exhibited, one of which was harnessed to a chaise, and appeared to be as obedient to the rein as a horse; the other was saddled for ladies to ride upon, and was, as might be imagined, as gentle and obedient as his companion.

THE REIN-DEER.

Of all Quadrupeds, none could be found to prove so useful as the Rein-deer to the Laplander. This animal

appears to have been sent by Providence for his peculiar service, and supplies him with food, milk (of which butter and cheese are made), bedding, and clothes. Their sinews and tendons yield him thread and strings for his bow; and of their bones, hoofs, and horns, utensils, glue, and other useful things are manufactured. Such is the utility of this patient creature, which thrives only in the icy regions of the North; and where, but for his aid, his master probably could not exist. In sledges he conveys the hardy Laplander over the dreary waste, covered with snow, at the rate of one hundred miles in a day; and by his acute smell and sagacity, knows the course he is to pursue. Thus is he applied to the services of our three most useful animals, the horse, the cow, and the sheep; and is, in fact, the only wealth of his master.

The rich Laplander sometimes possesses a herd of two thousand of these valuable creatures, and the poorest of them generally has a considerable number; all of which, in whatsoever way they may be employed, follow the example of an old male who leads them, and which the herdsman directs with a whistle: this is offered as a striking proof of their sagacity. Indeed, even in a wild state, they follow a leader in every emergency.

The MUSK-DEER is about the size of the Roebuck, though by no means of so graceful an appearance. Its hair is long, coarse, and of a brownish white, or iron grey colour,

which covers its very short tail. It has no horns, erect ears, and from its mouth two hooked tusks protrude.

The Musk-Deer, properly so called, (for of this genus there are several species), is a native of Asia, chiefly found in the mountains of Thibet. Its most striking peculiarity is that the male has a small bag or pouch under his belly, scarcely larger than a pigeon's egg, which contains the perfume called by the animal's name, *musk*, which is not only prized for its odour, but is used for medicinal purposes also. That which is found upon the Musk-Deer of Thibet is the most highly valued for its superior excellence.

ANTELOPES.

THIS is a genus comprising many species of animals between the Deer and the Goat kinds. They have hollow horns, which, like the Goat, they never shed; while in their speed and elegance of form, generally, they resemble the Deer. Of these there are innumerable varieties, from which we select the Gazelle and the Spring-bok.

The GAZELLE is a native of both Asia and Africa, and in size and form resembles the Roebuck, but exceeds almost all other quadrupeds in swiftness. The speed of the Antelope is referred to in the Holy Scriptures, wherein the Galites are, by similitude, spoken of as being "swift as the Antelopes upon the mountains;" and of these the Gazelle is not only one of the most elegant of the tribe, but has a singularly beautiful eye; and according to oriental taste, the

highest compliment that can be paid to a lady, is to compare her eye to that of the Gazelle.

Neither its beauty nor its speed are, however, sufficient to protect it from the arts and destruction of man. The Arabians and Persians, unable to overtake it by dogs, train up both birds and beasts of prey to assist them. The Chetah, a small sort of Leopard, is thus trained, and accompanies the hunter; and when the Gazelle is shown him, he descends, creeps slyly towards it until he thinks it within his reach, when he springs upon his victim, and is allowed to suck its blood. If he happens to miss his object, he does not attempt pursuit; but, like a detected thief, crouches into his place as though ashamed of his want of skill.

But it is from the Falcon that the beautiful Gazelle has most to dread; since this bird of prey is taught, while young, to fix upon its throat. The oriental hunters are always mounted on their fleetest horses, and as soon as they observe the Gazelle, they point the Falcon to the prey; the bird darts off like an arrow shot from a bow, and, in an instant, fixes one of its talons in the cheek and the other in the throat of the Gazelle; nor ever quits its hold until the creature falls. The hunters then come up and share the spoil with the bird, which is permitted to feed upon its blood.

The **SPRING-BOK** is an inhabitant of Southern Africa; of a larger size than the Gazelle, and altogether a beautiful animal. The upper part of his body is a fawn colour, with

a white stripe along his back ; the under part is white also, and is divided from the darker line of his coat by a broad band of hair of a rich chesnut colour, passing along his sides.

He is peculiar in his movements, by which he obtained his name ;—" springing, at least, six feet at every leap in height," says Mr. Campbell, " and several yards in length. However near a person may be to these animals, no motion of their legs can be perceived ; the instant they touch the ground after one spring, they are again into the air, which makes their motion resemble flying." They herd together in immense flocks ; Mr. Burchell says " they covered several parts of the plain" to the number of two thousand.

Timid as they are in their native wilds, when bountifully supplied with herbage and water, it is far otherwise in a season of drought ; when every blade of grass is withered by a burning sun—when no moistening drop of rain is known to fall—when every spring has failed. Then it is that the Spring-Boks descend upon the plantations of the colonial farmers of the Cape, in myriads, destroying all before them. When, however, the rains visit their lonely habitation in the desert, instinct prompts them to return

Captain Stockenström (who was the principal commissioner at the Cape) says, " Instances have been known of some of these prodigious droves passing through flocks of sheep, and numbers of the latter carried away by the torrent (of Spring-Boks) being lost to the owners, and becom-

ing a prey to the wild beasts." It is in vain that thousands of them are killed, others still continue to destroy, until "the falling of the rains," when they, at once, retire to the desert.

VULPES—THE FOX.

THE FOX is a well known animal, and is frequently hunted for the amusement of his tormentors. The three commonest varieties are the Greyhound Fox; the Mastiff Fox; and the Cur Fox,—the latter, about the size of a terrier, but with a bush tail, is the smallest of these, and most common. He is generally red; but, in the cold climates of the north, Foxes are black, white, blue, gray, &c. Everywhere, however, the Fox is a cunning robber, preying upon all he can catch.

Although of the Dog-kind, as distinguished by naturalists, between the Dog and himself there appear, however, to be no feelings of cordiality. Wherever the former scents him, his life is in danger, and he seems to know it; since it is by night he lurks about our hen-roosts, or watches his opportunity to steal a lamb. If he chance to get among the poultry, he will not be satisfied with seizing a fowl and bearing it away, but makes a general slaughter; retires with such part of his booty as he can carry (which he will hide), and then returns again and again to bear off the rest

of his plunder, hiding each load in a different place, until day-light and the voices of men or dogs render it imprudent for him to make another trip. He will afterwards dig up his hidden treasure as he requires it.

When pressed by hunger, he will eat almost anything;—frogs, mice, fish, serpents; and if even these are not to be had, he will then have recourse to fruit and vegetables. He is fond of grapes, and will plunder even a bee-hive, in despite of the sting of its inhabitants. He will steal birds out of snares in which they have been caught, and never fails to make great havoc among the game; stealing young hares, rabbits, eggs, and partridges while hatching;—in short, whatever comes in his way, which art or impudence can obtain. He relies upon his cunning when pursued, and it is by this he often effects an escape when all else would fail; but, if caught, he dies fighting to the last. He will live twelve or fourteen years.

ILLUSTRATIVE ANECDOTES.

FOXES, although generally pursued by dogs, may be bred up to associate with them upon terms of mutual friendship. Many years since, we saw a tame Fox thus bred (with dogs), which appeared to be quite as familiar with his master, jumping on his knee and licking his hand.

In the course of a Fox-chase in Bedford (England), the dogs were suddenly at fault (that is, had lost scent of the

Fox), after a long run, and just when they were almost at his brush. Every effort to renew the chase appeared hopeless ; when an intimate friend of the writer, in crossing a stile, saw master *Reynard* upon the top of a quickset hedge, through which he had crept after having leaped over a wide gap, which had misled the hounds. An effort was now made again to start him ; but he saw the only chance of saving his life, and cunningly proceeded along the top of the hedge, from which he soon plunged into the river, and got clear off.

The attachment of the female to her young is very great. Goldsmith tell us that a she-Fox had been unkennelled (or driven from her retreat), by the hounds of a gentleman near Chelmsford. It appeared that the poor creature had only one cub left ; and though closely pressed by the dogs, her fears for her own safety could not induce her to forsake it. She seized it in her mouth, and thus carried it several miles, the hounds in full cry after her ; until, passing through a farm-yard, she was attacked by a mastiff, and forced to drop the object of her care, which was picked up by the farmer ; and, after a hard run, she escaped.

LUPUS—THE WOLF.

THE Wolf is fierce, of a lank and rough appearance, with a long bushy tail and long nose ; of a reddish, brown, or

gray colour,—in the polar regions, white,—and somewhat larger than the mastiff ; but, though bearing a strong external and still greater internal resemblance to the dog, no two animals can be more unlike in their natures, or entertain a greater antipathy to each other.

The Wolf is a voracious enemy and a faithless friend. Ball, after quoting the account of F. Cuvier, relative to the strong attachment shown towards him, and others, by a pet Wolf, says, “ Now, if we feel that the mere education of a young Wolf, taken from its parents in a wild state, could so far change its natural disposition, and make it so fond, so intelligent, and so grateful as this, what may we not expect from the successive transmission of improvement by the culture and training of a whole race for ages ? ” Whatever might be expected from such experiments, we much doubt that they would have the effect of reducing the Wolf to the faithful and self-denying state of the dog, as is implied by the writer quoted ; since, although for the purpose of destroying, he joins his fellows, who thus more securely attack their prey ; yet, if he find even one of his own species either dead or disabled, such is his insatiable nature that, in both cases, he devours it. Indeed, when any of them happen to be wounded, others will track them by their blood, and tear them to pieces.

The Wolf is common to every quarter of the globe. He is, however, most numerous in the wilds of the North, where he will live from sixteen to twenty years. His skin

is sometimes used for clothing, every other part of him being offensive to man and beast.

ILLUSTRATIVE ANECDOTES.

ALTHOUGH the Wolf is not a creature of which man can make a friend, we ought never to forget that, in the destruction even of a living pest, it is cruel to torture unnecessarily. As it regards the Wolf, man has a much better excuse for hunting it than the many timid and harmless animals which he tortures to death. The Wolf, however, acts accordingly as nature has endowed him with instinct, appetites, and passions. Dr. Richardson, who accompanied Captain Franklin in his Polar expedition, was, in the year 1821, passing down the Copper-mine River, on the banks of which, he states, were herds of deer and musk-oxen, followed by bears and Wolves. Of the cunning of the latter in insuring their prey, by forcing it over precipices, he thus speaks:—

“ Whilst the deer are quietly grazing, the Wolves assemble in great numbers, and, forming a crescent, creep slowly towards the herd, so as not to alarm them much at first; but when they perceive they have hemmed in the unsuspecting creatures, and cut off their retreat across the plain, they move more quickly, and with hideous yells terrify their prey, and force them to flight by the only open way, which is that towards the precipice, appearing to know that when





the herd is once at full speed, it is easily driven over the cliff, the rearmost urging on those that are before; the Wolves then descend at their leisure, and feast on the mangled carcasses."

Although Wolves appear to prefer human flesh to any other, yet, when not urged by excessive hunger, they fear to attack man. The author we have cited above, was sitting one evening near the edge of a precipice which overhangs the Copper-mine River, upon which he was gazing; he heard a rustling noise, and on turning his head, saw nine white Wolves closing upon him, as they are wont to do upon the deer, in the form of a crescent. How the Doctor must have felt, our young readers may imagine. He had but one chance of escape; and, hastily getting up, he bravely proceeded towards them, when they gave way, and he passed through the opening in safety.

Buffon tells us that he procured a young she-Wolf from the woods of about three months old, which he confined with a puppy of the same age, of the shepherd's-dog breed. During the first year they played together familiarly; in the second, the Wolf would not let him come near the food given to them, although there was plenty for both. The dog was the strongest, but he would not resist his companion, which would now not only eat until she was filled, but would carry the rest away; and, at last, she sprang upon the dog, which, in his own defence, turned upon his intended murderess, and killed her outright. So

unnaturally savage, however, had he become by his association with her, that it became necessary to destroy him.

THE HYÆNA.*

THIS is a strong, ferocious creature, as large as the Wolf; and though classed by naturalists with the dog kind, the Hyæna, in his wild state, shows no more affinity to the disposition of the dog, than does the wolf himself, which he much resembles in the savageness of his nature, possessing, however, far more courage. It is, notwithstanding, asserted that when taken he soon becomes sensible of kindness.

His legs are longer than those of the wolf (the hinder ones being longer than the fore), and his body shows much strength. His back is arched, from the centre of which proceeds long bristly hair. In India, Abyssinia, and Senegal, he is of an ash colour, with black stripes, or waves, down his sides; in Southern Africa he is of a reddish brown, and spotted. His neck is thick, very short, and so stiff that he must turn his body to look behind: his ears are

* Goldsmith thinks it probable that, from the similitude of this animal's appearance to the hog, it obtained its name; "*Huoina* being Greek, and derived from *Hus*, a sow." The Latin appellation is *Hyæna*.

straight and bare; he carries his head low, in which his eyes are seen to glare ferociously; and he is generally viewed but as a creature whose external appearance bears evident proofs of the implacability of his nature; nor is the least of these the constant grin and display of his teeth, which accompany his restless movements in a state of confinement, where education has not reclaimed him.

The Hyæna is not only stronger, but, as already observed, he possesses none of the cowardly attributes of the wolf; on the contrary, he will defend himself when attacked even by the lion, will engage with the panther, and is a victorious conqueror of the ounce. He joins his species to hunt in packs, like the wolf; but although vast numbers of them prowl together, still he is a solitary depredator, who makes his den in the cleft of a rock or mountain; and, although numerous as sheep, where prey is to be procured, they will sally forth in search of it fearless and alone. If the Hyæna meet with nothing else, he will dig up the dead bodies of men or beasts, which he scents in the open fields, both in Asia and Africa, of which places he is a native. He has been said to be untameable, however young he may be caught or kindly treated,—but this assertion facts have clearly disproved.

ILLUSTRATIVE ANECDOTES.

HOWEVER rare or frequent the instances may be of the reduction of a Hyæna to anything like docility or tameness

(and instances are not so rare as they are said to be), still he is by no means *naturally* docile, although Barrow says, there is a species of them in South Africa which are domesticated: and Cuvier also remarks, that in this state it would, "doubtless, render to man services of the same kind and degree as the canine species." The variety called the Spotted Hyæna is said to be the least ferocious. We have seen the keepers of these animals, while remarking upon the generally received opinion upon this subject, prove that the rule was not without its exceptions, by familiarly playing with them, while they laid themselves down, when bidden, to be caressed, of which they appeared to be quite sensible. To our inquiries of a keeper, as to the means he had employed to so far subdue the native ferocity of one of these creatures, he stated, that the ordinary means of taming wild and savage quadrupeds had been adopted; namely, stinting them in food, and above all, breaking their rest. It is by a perseverance in the latter means, which completely wears out the animal, and reduces it to a state of comparative tameness. Buffon also says, that in the year 1771, he saw a Hyæna "perfectly gentle; for though the keeper made him angry for the purpose of erecting his mane, yet he seemed to forget it in a few moments, and suffered himself to be played with without any appearance of dislike." The same author speaks of a large Hyæna which is found in Meroe (an island of Ethiopia), which will bear off a man, and carry him a league without stopping.

We once saw a Hyæna that was quite blind, and appeared to be very ferocious in his manner. He had, however, been thought otherwise, and was sometimes trusted to run loose upon the deck of the vessel which brought him to Europe: until one day, as he was gnawing some bones, a little black boy passed near him, upon whom the savage brute sprang, instantly killed, and was about to devour; but he received some heavy blows of an iron bar upon the head, which not only made him quit his hold, but deprived him of sight also, and he was secured.

The JACKAL and the ISATIS are also genera of this order.

The JACKAL is about the size of the larger kind of fox, and somewhat resembling that animal in appearance. They are found in Asia and Africa, and hunt in packs. From being followed by the lion, which seizes the prey which he has run down, he is sometimes called the "Lion's Provider." He is a ferocious little beast; and, like the Hyæna, will eat anything which has once possessed animal life. He is, however, to be tamed, when taken young.

The ISATIS is an inhabitant of the frozen regions of the North, in which alone he can thrive. He is also much like a fox, excepting his head, which resembles the head of a dog. His colour varies, being sometimes brown, and at

others white; and to add to the peculiarities of this species, there is a blue kind, which always keeps the same colour.



LEO—THE LION.

THERE is not, perhaps, any well-known animal so much misrepresented as the Lion. His majestic appearance, great strength, and the extraordinary docility to which he may be reduced by the education, or training of man, has probably given rise to the errors into which those writers have fallen, who, having had but an imperfect knowledge of his habits in his natural state, have not only described his courage as equal to his powers, but have attributed to him all the generous attributes of the Dog. We shall, however, endeavour to show his real disposition by our illustrative facts. The Lion is an inhabitant of the southern parts of Asia, and roams at large over the burning deserts of Africa, where he attains to his greatest size, strength, and boldness. Wherever man has not encroached upon his wide domain, the Lion prowls, sole monarch of the wilderness, from Abyssinia to the colder region of Mount Atlas, East and West, and from Biledulgerid to Caffraria, North and South. But the difference of climate causes a difference in his appearance and bearing: the Lion of

Mount Atlas is much smaller and far more timid than that which is bred at a greater distance from the neighbourhoods of men. The former "are to be scared away with a shout," says Buffon, "and seldom attack any but the unre-sisting flocks and herds, which even women and children are sufficient to protect against them." But it is on the torrid sands of Zaara where the Lion stalks in the plenitude of his power; and where no rival depredator of the forest can successfully resist his terrific sway. The terrific powers of the unsubdued Lion of the Desert can scarcely be estimated by a survey of the one bred in a menagerie, which is but the mere shadow of his great progenitor.

The form of this noble-looking brute is dignified and imposing; and at once conveys an idea of his amazing strength. The larger of the species are from eight to ten feet long from the nose to the insertion of the tail, and the tail itself, (at the end of which is a tuft of hair), about four; while the height of such an animal would be from four to five feet, or about the size of an Ox, though somewhat lower in stature. But he is by no means clumsy in his form or movements; on the contrary, he is a perfect model of strength and agility. His full front is overhung with a long shaggy mane, which descends from his neck upon his broad shoulders and expanded chest; which, when he is enraged, he not only erects, but agitates by a continued motion; while the terrific fierceness of his eye, the movement of the skin of his face,—his tremendous roar,

resembling a clap of thunder,—and the lashing of his tail the force of which would lay a man prostrate on the earth, show him to be an enemy requiring all the skill and firmness of man to contend with and to subdue.

The hinder quarters of the Lion are not so large as the fore; but, like all the cat tribe, he is thinner towards the loins; yet, as already observed, his strength is prodigious. He has no superfluous fat nor flesh, but appears to be chiefly formed of bone and muscle, and can, with apparent ease, bear off a horse or a buffalo. His general colour is a tawny yellow, but there are several varieties in this respect. Mungo Park tells us of the large red Lion; and the black Lion (so called from the hue of his mane), as described by Burchell, is one of the largest and most formidable of the tribe. With the exception of his mane and the tuft at the end of the tail, his hair is short. His tongue is rough, being covered with large prickly substances, with which he licks off the flesh of the more tender kinds of his prey, although his powerful jaws and strong teeth enable him to crack the bones of whatever he kills, which with his deadly claws he tears asunder. He drinks often, lapping the water like a cat; and it has been said that he requires fifteen pounds of meat every day, by all the copyists of the writer who first made the assertion; but facts show that he is willing to take much more when it falls in his way. The same class of writers point out the precise animal which he prefers to feast upon, one averring it to be a Camel, another

an Ox; they, in short, repeat the errors and inaccuracies of preceding writers, without appearing to have made the least inquiry upon the subject, of which our young readers will be best qualified to judge from the evidence of the facts which we shall adduce.

The eye of the Lion, like that of the Cat and other animals of this tribe, is so formed that he can see objects distinctly with very little light, which enables him to seek his prey by night.

Notwithstanding the oft-repeated prejudices in favour of the Lion, we have the best authority for saying that he usually obtains more by his cunning than his courage: hunger, however, will render him desperate; when, conscious of his strength and regardless of danger, he will attack whatever comes in his way, whether man or beast.

Like the Cat, he crouches and seizes his prey with a bound; but when satisfied with his meal, he will not, like the Cat, Tiger, and other relentless animals, kill for the mere pleasure of destruction; but lies contentedly down in his lair, which is generally some thicket near the water, where he may the more readily spring upon the unsuspecting animals that chance to come there to drink. But still "he is brave only in proportion to the success of his encounters," says Buffon, which is certainly not the description of "magnanimous courage" possessed by many other creatures: the Dog, for instance, though so much his inferior in size, strength, and capability, boldly advances to attack him

and does not, as it has been repeatedly stated, "crouch at the foot of his master with terror on seeing a Lion."

The Lion will live to about twenty-five years; but it is when he grows old that he becomes the most troublesome to man; since, while he is able to provide for his necessities in the forest, he seeks not elsewhere for food; but, as the infirmities of age steal upon him and preclude him either from contending with inferior animals which he was wont to conquer, or from insuring the game he was accustomed successfully to prey upon, then it is that he approaches the domestic flocks and herds of the farmers; ravages alike the fold and the pasture; nor ceases to pursue his course of rapine until, in turn, pursued, he falls a victim to the determined efforts of the hunter.

The female is in size about one fourth less than the male, nor has she anything of his noble appearance. She is entirely without mane, of a more slender form, and possesses a more ferocious disposition; indeed, when she has young ones, she attacks whatever she meets with the most determined inveteracy, and would die fighting in their defence. It has been said that while she has cubs, the tamest Lioness then becomes savage and intractable; but this, like many other of the oft-repeated assertions to which we have alluded, is decidedly erroneous.

ILLUSTRATIVE ANECDOTES.

It has been too often proved, when man has reduced a naturally savage animal to obedience, that, not content with merely commanding, he will sometimes inflict unnecessary chastisement where kindness alone would have insured a ready acquiescence to his desires; forgetful that Nature is not to be wholly extinguished by art. Persevering cruelty has occasioned even the most generous of all quadrupeds, the Dog himself, to turn upon his master; and those who are inclined in any way to ill-treat or tantalize animals which are ferocious in a natural state, should recollect that such a course is the surest means of calling into action their most ungovernable propensities. We take this opportunity of cautioning our young readers also, never to attempt any familiarity with creatures which are of a savage nature, when they attend an exhibition of them, however submissive and friendly they may appear to their keepers, since from such imprudent conduct the most serious and fatal results have occurred.

We now proceed to show the Lion reduced to a state of tameness and docility, and will afterwards show him as he is to be found in his native wilds.

Labat tells us of a gentleman who had a Lion so very tame and gentle in its deportment, that he used to allow it to lie in his own bed-chamber. He kept a servant to attend

to it, with whom it was also very familiar; but who, not satisfied with the Lion's submission, was in the constant practice of beating him, which the creature bore for some time with comparative patience. One morning the gentleman was awakened by an unusual noise, when, on undrawing the curtains of his bed, he beheld a sight that chilled him with horror—the Lion was growling over the head of his keeper, which he had actually torn from the body! Springing out of bed, he escaped from the room, and calling for assistance, the creature was ultimately secured without doing further mischief.

Like many other animals, the Lion becomes attached to any creature with which he has been bred. We have seen several, each of which was confined with a Dog; one with a puppy of about two months old, that snapped at, bit and teased him, all of which the noble brute bore with the utmost good-humour and forbearance. We also saw a second Lion with a full-sized rough terrier in his cage; and a third with a very large female of the pointer breed which had suckled him, between which and himself there appeared to be a strong attachment. Although her nursling stood in no need of her assistance, had there been any danger at hand, yet she placed herself before him and showed strong symptoms of anger if any one approached too near the den; notwithstanding, he appeared very indifferent upon the subject himself; but he rubbed his head against her, placing his lower jaw upon her shoulders, and while he

opened his large mouth wide enough to have swallowed her up, she was playfully biting his under lip.

We will now show the Lion in his native wilds ; reminding our readers that we have already told them they must not expect to find the same degree of cool, determined courage in untamed Lions, as is possessed by an English bulldog or mastiff. John Campbell, minister of Kingsland Chapel, London, says, when travelling as a missionary in South Africa, his party fell in with many Lions. As they were one day approaching a fountain, where they intended to halt, two of the horsemen came galloping towards the wagons ; they had seen two Lions couching among the reeds ; and thirteen armed men (after the wagons had been chained, for fear the sight or roaring of the Lions should scare off the oxen yoked to them) prepared to give them battle. They fired into the lair and disabled the female, so that she could not stir ; when a second fire killed her, amidst the barking of the dogs which accompanied the people. This was sufficient, one would have thought, to have roused an African Lion to action ; but, instead of attacking his enemies, he ran up an ascending slope, in an opposite direction, twice looking back for his mate, and disappeared. In the evening, as the party sat at supper, the conversation turned upon Lion-hunting ; when in the midst of it, they heard a Lion roar at a little distance behind their tent. We have already said the roar of a Lion is tremendous, when echoed by the rocks and mountains ; and the

more so from his placing his nose near the ground. On the present occasion, his roar was succeeded by another, still nearer. This kind of savage serenading was enough to spoil the supper of any party who were compelled to take it in a desert, and where the marauding musician might take a fancy to one or other of them for a supper for himself. However, he caused them no further trouble that night, and very likely he found the carcass of his mate, which had been skinned; and which the Boors, or natives, declared he would eat if he discovered.

Mr. Pringle was a settler on the frontier of the colony of the Cape of Good Hope, and was one of a party engaged in the sport of hunting the Lion, when his savage majesty (as is often the case) did not choose to be disturbed in his seclusion. "At length," says Mr. Pringle, "after some hours spent in beating about the bush, the Scottish blood of some of my countrymen began to get impatient; and three of them announced their determination to march in and beard the Lion in his den." The Hottentots of the party were to support them; but when the three had fired and roused him, out he bounded, with a growl, from the bush, and away flew the Hottentots, leaving the Scotchmen to make the best terms they could for themselves; who, with their empty guns in their hands, were tumbling helter-skelter one over another, to get out of the animal's reach. In an instant, however, he had knocked down one of them (Mr. John Rennie of East Lothian) with his paw,

over whom he stood in all the dignity of majestic power ; while the others were scrambling towards their friends as fast as they could, yet in such a way as to prevent these very friends from firing, lest they should hit one of them. There stood the enormous Lion, with his foot upon one of their party, staring at the rest, who, with their guns cocked, were afraid to shoot, lest they might wound him. All this, however, was the affair of an instant ; since the Lion, in a few seconds, bounded away over bushes and thickets twelve or fifteen feet high, as the settler observes, “ like a cat over a footstool,” leaving his prostrate enemy with a severe bruise in his ribs from the tap of his paw in dashing him down, and a few slight scratches on his back. Notwithstanding the broad hint the Lion had just given them, they, however, now pursued him up a mountain, with Hottentots and hounds in full cry, until they came up with him, where he stood under a tree by the side of a stream ; but there was no volunteering to “ beard him” this time ; and while the dogs kept him at bay, the Hottentots ascended the heights on one side, the gentlemen occupying a safe position on the other ; and both cracking away at him with their guns, he dropped, covered with wounds.

He was of the pale or yellow kind ; and from the tip of the nose to the end of the tail, measured twelve feet. As a trophy of the victory thus obtained in the desert, and as a tribute of respect to Sir WALTER SCOTT, the skull and skin

of the Lion were forwarded to him at Abbotsford, where they are still to be seen.

The PUMA or COUGAR.—He is chiefly an inhabitant of South America; but he is known also to the mountains of Carolina, Georgia, and Pennsylvania, and is sometimes called the “American Lion,” and is about from four to five feet in length, with stout limbs, of a handsome fawn-colour, and silvery white underneath: it has no mane, its tail is long, without a tuft at the end, but is of nearly equal thickness, like that of the wild-cat, which this animal closely resembles in its cowardice, cunning, and thirst of blood. It will, however, unlike the cat, swim across rivers after its prey; climb trees, and seize upon everything which it is not afraid to attack; and from the tree it will drop on the deer or any larger prey. Like a cat, it may indeed be tamed, but it is scarcely safe to trust it. The late actor, Kean, had one with which he is said to have been very familiar.

TIGRIS—THE TIGER.

OF all the creatures of this tribe, the Tiger is most to be dreaded, since he is the most powerful, agile, and ferocious tyrant of the Indian jungle. Cuvier truly calls him “san-

guiniferous ;' since such is his delight to revel in gore, that he will force his head into the wounds he inflicts upon his prey, which he will often quit ere he devour it, to attack a second object, and slake his thirst in its blood.

The Tiger is a beautiful animal to look at ; the bright yellowish-red ground of his skin elegantly marked with regular and jet-black stripes across his body and legs, is delicately contrasted by the snowy whiteness of his throat and belly. He possesses the elegance of form and agility of the cat, with all her cruel qualities, and with terrific means of gratifying them. The largest kind is most plentiful in Hindoostan, and is called the "Royal Tiger," which is sometimes nearly five feet in height and ten in length. Of the strength of this animal some judgment may be formed, when our readers are told that he will readily bear off a horse or a buffalo, throwing the carcass over his shoulders, and bounding away with it to his jungle ; and when it is considered how far a cat will spring in pursuit of her prey, some idea may be formed of the capacity of the Tiger, according to his proportionate size and strength. The province of Bengal, near the mouth of the Ganges, is infested with Tigers, some of which are as large as an ordinary horse. Varieties are common also on the Malabar coast, the southern parts of India generally, in the Indian Islands, and in Africa.

They differ in size, strength, and general appearance, and also in their daring, according to their genera and location.

The Tiger inhabiting the Sunderbunds (or lakshadweep or woody islands in the Delta of the Ganges), springs upon his prey from his hidden retreat; while in Sumatra (where the superstitious inhabitants will scarcely attempt his destruction until their own villages are attacked), he ravages with impunity, depopulating whole districts to a frightful extent. Here is also to be found that variety of the species called the Tortoise-shell Tiger, which, as Sir Thomas Stamford Raffles says, is comparatively harmless, and dreaded by the natives on the score of their poultry only. There are also white and black varieties of the order; the former to be met with in India, the latter in Southern Africa.

The Tiger is, perhaps, the only animal that contends successfully against the Lion. In general he is less muscular, but more nimble and ferocious. Such is his ardour in the pursuit of his prey, that he will follow it in the water, and sometimes attack a boat's crew,—where such an enemy may be expected, are always provided with hatchets, with which they chop his paws when he places them on the gunwale, or edge, of their boat; from whence, as upon all other occasions, he is always inclined to prefer a black man (owing perhaps to the smell of his skin) to a white one. He does not roar, but makes a hideous and frightful noise, somewhat of a violent howling cry, and always takes his prey with a bound; certainly not possessing the cool courage of a thorough-bred dog, which would deliberately attack an enemy though greatly his superior.

THE TIGER.

ILLUSTRATIVE ANECDOTES.

LIKE other voracious beasts, nothing will deter the Tiger from attempting to obtain his prey when hungry, however apparent may be the danger he risks. A Scotchman, who was a soldier in India, assured us, that while the army was on its march, in broad day, an enormously large Tiger sprang from a jungle which they were passing, and carried off one of the men in his mouth, with as much ease "as a cat would carry off a mouse,"—and was out of sight before any effort could be made for the recovery of the poor man, so quick and unexpected was the whole occurrence. The Postmen of India, who are called Dawks, and who travel on foot, are frequently seized by these creatures, as are those who escort them; nor can anything be more dangerous than for individuals to venture, unless in well-armed bodies, within their blood-stained neighbourhoods. In 1819, an Official Report was presented to the Indian Government, in which it was stated that eighty-four persons had been seized and carried off by Tigers, from one district only, in the course of the preceding year. It may be supposed how much the possessions of the East India Company must have been infested with these depredators, when the amount of premiums bestowed upon those persons who slew them in the year 1808, is stated to have been \$75,000.

Like most other animals, the Tigress is attached strongly

to her young. "In the Oriental Field Sports," Captain Williamson tells us that some peasants in India had found four cubs in the absence of their mother, and brought him two, which he placed in a stable. After howling for several nights, the Tigress approached and responded to them; and it was deemed prudent to let them out, lest their mamma should break in;—the next morning she carried them off.

The Tiger, like all animals when brought under the control of man, will evince signs of partiality towards his keeper, or others accustomed to treat him kindly. Still, we think the familiarities of keepers are sometimes carried too far, as there are times when the natural instinct of savage brutes will reign paramount, in despite of their training. The impropriety, however, of strangers at tempting to take any freedoms with such creatures, cannot be too often nor too deeply impressed upon the minds of our readers,—since, from inattention to it, how many fatal accidents have occurred! A schoolmaster went to see a menagerie, where, admiring the beauty of the Tiger, he offered it an apple. The creature seized his hand, dragging it into the cage; and although by the efforts of the keepers the brute was compelled to let it go, yet it was so dreadfully lacerated that amputation became necessary; and, in a few days afterwards, the poor man was a corpse.

To the partiality of the Orientalists for witnessing the combats of wild animals, we have slightly alluded; and

will now give our readers, not only an illustration of their savage tastes, but also the invincible courage of their fellow-beings, who run the risk of a dreadful death in its gratification. The statement from which we are about to quote is narrated by a gentleman who was invited by the Rajah of Coorg to become a spectator of his cruel and terrific *amusements*. Coorg is a principality of Hindoostan, which our youthful readers will discover upon their maps, situate in the Western Ghaut mountains of that vast region.

The Rajah, with true Asiatic vanity, prided himself upon the number of savage beasts he possessed; having, it was said, many Lions and Tigers which had been brought to perfect submission, besides others which were kept for combating.

On the appointed day of the exhibition in question, the Rajah with his court, and other persons, were seated in a gallery, below which was an arena of a hundred yards square, where the sports commenced. After some engagements of inferior animals had ended, a man entered the arena almost naked, having on a pair of trowsers only, that just covered his hips, and reached scarcely half-way down his thighs. He was tall; and, though slight, yet muscular, strong, and active. His body glistened with the oil with which it had been rubbed to add to the pliability of his limbs; and in his hand he held what is called a coorg-knife, somewhat in shape like a plough-share, about

two feet long, three or four inches wide, and tapering a little towards the handle: it is heavy, and first swung round the head by the person who uses it, by which means a blow is inflicted with a force that is truly wonderful. The Hindoo who now appeared, had volunteered to combat with a Tiger; and, having brandished his weapon, "The expression of his countenance," says the writer, "was absolutely sublime when he gave the signal for the Tiger to be let loose; it was the very concentration of moral energy—the index of a single and settled resolution!"

Men, who were placed above, at his signal, raised the bars of a cage from which an immense Royal Tiger sprang before him with a half-stifled growl, and waving its tail, upon which it erected the hair as a cat does when she is angry. It looked at its antagonist, who met it with his eye, and then at all around; but uneasy at its novel situation, it leaped again into its cage, from which the keepers above not being able again to force it, let fall the bars by which it was secured.

Some crackers were tied to the creature's tail, which projected through the bars; to these the man applied a lighted match that had been handed to him, and the bars were again drawn up. The Tiger now bounded out of its den in a state of frantic excitement, until the crackers having exploded, it couched gnarling in a corner, like a cat when she is annoyed—the bars of its cage had been let down; and the brave Hindoo, who had been watching its motions, now

slowly and resolutely advanced towards it. Thus roused, the hairs of its body became erect, and its tail (like the tail of an angry cat) twice its usual size; yet, as the man slowly advanced, it again retreated, keeping its front towards its brave opponent, who still advanced with the same slow and measured step as before. Suddenly he stopped; and now paced steadily backwards, his eyes still fixed on his enemy, which, as he thus retreated, raised itself to its extreme height, lashed its tail, and arched its back, preparatory to making a spring. The Hindoo still moved gently backwards, and when the Tiger could no longer see the expression of his eye, it bounded towards him with a growl. With the swiftness of lightning, however, he sprang on one side, whirled his ponderous knife around his head, and when the animal's feet reached the ground, it felt the full force of the irresistible blow designed for it, just above the joint of the hinder leg, the bone of which it completely snapped in two. The Hindoo retired a few paces, and the wounded beast, disabled from making another spring, roaring with pain, rushed towards him upon its three legs (the other hanging by the skin only) in a state of reckless excitement, while its courageous foe stood calm and determined, awaiting the shock, poising his trusty weapon above his head, and which, when his antagonist had got within his reach, he struck with such force into its skull, as severed it from ear to ear, and the conquered brute fell dead at his feet. He then calmly drew his knife across the Tiger's skin to

cleansed it of the blood ; made “ a dignified salaam,” or bow, to the Rajah, and amidst the loud plaudits of the spectators, he withdrew.

PARDUS—THE PANTHER.

THE Panther is the next of the Cat tribe to the tiger ; and from this animal downwards to the cat itself, the principal difference is their decreasing size and the colour of their skins. The large Panther is sometimes six feet in length, from the tip of the nose to the insertion of the tail, and exceeding three in height : his limbs are strong and muscular ; and his skin, instead of being striped like that of the tiger, is marked with clusters of black spots, each cluster forming an irregular circle, in the centre of which is also a spot. These rings appear all over the upper parts of his body, which is of a tawny yellow, running lighter till it becomes a perfect white from the throat to the whole of the under part. He is an inhabitant both of Asia and Africa, and generally obtains the mastery over the leopard, which ranks next in size to himself, in the countries in which he ranges. He may be reduced to obedience, like others of the genus to which he belongs : but we again express our decided conviction of the impropriety of strangers making

free with them, and of such instances of petting them as those which we are about to record.

ILLUSTRATIVE ANECDOTE.

WE knew a gentleman who had an animal of this kind given to him when it was young, which he admitted to all the familiarities of the dog: nay, he even used to allow it to sleep at the foot of his bed. The creature showed a strong attachment to him, although he would sometimes growl at others; but even when his master chastised him he bore it patiently, nor ever offered resistance; and he was permitted, without restraint, to follow him about. The poultry, however, were occasionally thinned, and *Pard* (as he was called) was suspected by all in the house but his master, who was at length induced to chain him up. Still the poultry decreased as before; upon which his master observed that "poor *Pard* could not *now* be charged with the robbery." But, going one day to feed him (which he always did himself), he saw a quantity of feathers at the further end of the kennel, and went a short distance off to watch the creature's motions, as some fowls were just then within a few yards of it: when, to his surprise, he saw the animal place small pieces of stale bread, potato, &c., within the limits of his chain, and retire into his box: the fowls hastened to partake of his treacherous bounty, when he

sprang upon them from his concealment, and dragged in three to devour as a dessert after the dinner he had just eaten.

LEOPARDUS—THE LEOPARD.

THE Leopard strongly resembles the panther, but is smaller, being scarcely four feet in length and two in height. His skin is, however, still more beautiful, showing a brighter yellow more deeply marked, although there is no spot in the centres of the spaces formed by other spots, as is the case with the panther. He is a native of the same countries, preys upon all that he is able to destroy, but flies from man unless closely pressed, when he will turn upon his pursuers with desperate resistance. From his agility in climbing he is sometimes called the Tree-Tiger.

THE JAGUAR.

THE Jaguar, called also the panther of South America, and the American Tiger, possesses all the cowardly, rapacious, and cruel attributes of his tribe. He is somewhat between the size of the panther and the leopard, and is not

only spotted, but marked about the head and neck with black streaks.



THE CHETAH.

THE Chetah, or Hunting Leopard, is considerably less than the panther, and scarcely ever exceeds three feet and a half in length, with a tail almost as long as its body. He is of a dark cream colour on the back, which runs into a white hue downwards, and the spots upon his body are not so dark as those of the leopard. He is, in India, employed in the chase, and is of a much more docile temper than most others of his race.

The manner of hunting with the Chetah is very peculiar. He is taken on a sort of wheeled carriage, drawn by buffaloes, with his eyes hoodwinked, and a rope, or collar, passed round his neck. When the hunters arrive within sight of the herd, the hood is suddenly removed from his eyes, and the collar slipped; the game is shown him, when, with the treacherous cunning of his nature, he creeps stealthily along behind whatever bush or herbage he may find to screen himself, until within reach of his prey, which by an agile bound or two he seizes and brings down. The hunter then advances, again puts on the hood and collar, and having rewarded the Chetah with the blood of its vic-

tim, he leads it to the carriage, upon which it is again secured. In speaking of the Gazelle, we have already observed that if the Chetah fail in his attempt, he will not, then, pursue the chase.

A great number of deer may be caught in a day, with a few Chetahs, in the way described above.

THE OCELOT.

THE Ocelot is a native of South America, and is one of the most beautiful, yet fierce and untractable, of the Cat family. He is smaller than the chetah, of a graceful form, and his skin of a fawn colour, variegated with black streaks and spots all over it. He pursues his game upon the tops of trees as fiercely as on the ground. These creatures appear to be fonder of the blood than of the flesh of their prey, the carcasses of which they will frequently leave untouched, to seek for the blood of other victims. Buffon had a pair of these animals that had been taken from their mother very young, which he afterwards placed with a bitch to suckle. The latter took every care of them; but before they were three months old, they fell upon, killed, and devoured her.

THE LYNX.

THE Lynx is a native of cold climates, inhabiting the northern parts of Europe, Asia, and America. It is in length somewhat smaller than the Chetah : but unlike most of the order to which it belongs, its tail is short, and black at the tip, reaching only to the middle joint of its legs. Its ears are long, erect, and tipped with a tuft of black hair. The colour of its skin is a reddish gray, with dusky spots underneath, the fur being long and thick : its eyes are bright, having a whitish circle round them, and have been fabulously recorded to possess the power of seeing through trees and other solid bodies : hence the custom of calling quick-sighted persons "Lynx-eyed." It seeks its prey by stealth, and prefers fresh game to feasting twice upon the same carcass.

Its skin forms an important article of commerce.

THE CARACAL.

THE Caracal, or Syagush, much resembles the lynx in size, appearance, and habits ; but is fiercer, and is a native of both Africa and Asia. As the lion, when

satisfied with his meal, retires, the Caracal follows his track to partake of what the stronger brute may leave. He, however, avoids the panther, and such other creatures as destroy even when they are filled; and is sometimes, like the jackal, called the "Lion's Provider." In India he is used for pursuing small game.

THE SERVAL.

THE Serval is also so much like the caracal, that it would be only a repetition further to distinguish it. It is used for the same purpose, and is to be met with on the coast of Malabar. From the cat up the lion, to a certain extent, the same qualities may be traced (the latter only not possessing the innate cruelty of disposition of the rest); they all evince a degree of cowardice to a superior force, and engage with it rather from desperation than choice. Their internal conformation is also very similar, as is also the construction of their tongues (which are all rough), teeth, and claws; the latter being retractile—that is, they are drawn in or extended at pleasure: and this order, taken as a whole, may be truly deemed the most formidable enemy with which man has to contend.

THE ZEBRA.

THE Zebra is a beautifully marked creature, somewhat larger than the ass; plump, round, and symmetrical in form: his ears are much shorter than the ass's, but longer than those of the horse, than whose its head is somewhat larger in proportion to its body, and it has a tufted tail. Its chief beauty, however, is the regularity of the black stripes over its whole body, which is of a grayish white. These stripes are of an exact form and dimensions as though they had been pencilled; and appearing on a smooth and glossy skin, it is impossible to conceive an animal more delicately and strikingly distinguished.

He is a native of South Africa, and feeds, as does the wild horse, in company with his fellows; nor is he less watchful than that animal,—but much more timid, flying with the swiftness of an arrow at the least suspicion of danger, and by his flight often showing that he suspects it when none is near. He is often said to be irreclaimably wild in his very nature; since it is asserted that no attempt which has hitherto been made to reduce him to servitude has succeeded. We have seen many living specimens of this animal in a confined state; and, although it may sometimes happen that they allow the persons who attend them to take some freedoms with them, we believe that such instances are the only signs of docility these

creatures have yet evinced. It may, however, be owing more to the want of proper training in these animals, than to an inherent intractability in their nature, that they have not been rendered useful servants to man; but Caffres and Hottentots are not the most likely people to effect such an object; although we think that, were the pains taken with the Zebra that are bestowed upon the Horse, it would in time be found that they had not been thrown away. We have here spoken of the smaller kind: Mr. Burchell has described a much larger species which inhabits the plains north of the Cape, and which, he says, is very strong and muscular.

The QUAGGA or QUACHA is a species of the Zebra, although by no means so beautifully marked, and with longer ears, but which are not of so thick and clumsy an appearance as those of the common ass. He is an elegant-looking creature, and remarkably fleet; but though he inhabits the same parts of Africa as the Zebra, they do not associate, but feed in their respective herds. The Bushmen and Caffres consider the flesh of this animal a great delicacy.

THE BISON.

THIS animal is of the Ox tribe; and by Buffon and other naturalists said to be the *Bonassus* of the ancients. He is to be found chiefly in the prairies (or plains) of North America, where countless herds of them roam at large. About the size of the ox, the appearance of the Bison is much more fierce, his colour is nearly black; he has a hump upon his shoulders, from whence flows a long mane over his neck and fore parts, which reaches down to his knees; he has a thick tuft upon his head; a long beard under his chin; and, when enraged, a fiery-looking eye. His flesh is excellent eating; and owing to the fineness of his wool, his skin is so valuable that, as Dr. Richardson tells us, a good one is worth from fifteen to twenty dollars. This wool, he says, has been manufactured into a fine and beautiful cloth in England. The herds (four or five thousand head, each) feed quietly if unmolested; but when they turn upon the hunters, they bear all down before them. Cuvier says, "if wolves offer to attack them, they form themselves into a circle and repel them." They are the favourite game of the Indian, who sometimes kills them by hunting, and at others, by stratagem, when he destroys them by hundreds at a time. In the latter case, the Indian disguises himself in the skin of a Bison, so that the head part may appear like the original:

he then places himself between the herd and the edge of a precipice, having, however, first insured to himself a place of retreat and security. His companions then secrete themselves at convenient distances, so as nearly to surround the herd (somewhat like the wolves in scaring deer), and, at a signal agreed upon, start up, uttering hideous yells; the alarmed creatures rush towards their disguised enemy at the edge of the precipice, who secures himself, and countless numbers, all rushing forward with impetuosity, fall headlong on the broken rocks below to meet a certain death.

The YACK, of Thibet, is also of the Ox tribe, and somewhat like the buffalo, having, however, a flowing tail like a horse, and a short mane. Its tail is said to form the standard of dignity; and Pachas of one, two, or three tails, take precedence accordingly. The Yack is fierce and untameable.

THE MAMMOTH.

IN calling the attention of youth to this stupendous quadruped, now no longer in existence, let them reflect that by the same Almighty Hand was created everything in regular order and gradation, even to the most minute object possess-

ing animal life. It should, indeed, remind them, that they formed by the same Omnipotence, are but as atoms in the great work of creation; and that, endowed with a mind, above all other of God's creatures, they should not arrogate to themselves any superlative excellence, but gratefully bow with reverence and humility to Him who has called them into life; an attention by which they can alone be enabled to entertain a just sense of their duties towards their fellow-creatures and to themselves.

Of the Behemoth, (frequently called Mammoth,) it is in the Holy Scriptures said, that "he eateth grass as an ox;—he moveth his tail like a cedar:—his bones are strong as bars of iron;—he lieth under the shady trees in the covert of the reeds and fens;"—and that "he drinketh up a river." But in the same sacred writings we are informed that, although "he is the chief of the ways of God, He that made him can make his sword to approach unto him."*

* We are fully aware of the opinions of many learned men relative to the Behemoth, some of whom declare that animal to be the elephant; while others, and the greater number, perhaps, aver it to be the Hippopotamus, or River Horse. Dr. Harris (*Nat. Hist. of the Bible*) says, "In the first edition of this work, I was at some pains to prove that the elephant was intended; but a more critical examination of the subject has changed my opinion." Whatever may be the decisions and illustrations of learned men, as to which of the above-named creatures is intended by the representation which we have quoted from Holy Writ, we shall not trouble our young readers by repeating them; but proceed with our narration of *facts* relative to

When, and by what means, its Creator willed the Mammoth to become extinct, it is impossible for erring human science to discover; nor is it necessary to the advancement of intellectual improvement that we should know.

The many specimens of fossils and petrifications* which have been dug up in the intensely cold northern climates, where bones of the Mammoth, elephant, and rhinoceros have been found in great quantities in their natural state, prove that the seasons have entirely changed in those regions from what they were when inhabited by those huge and stupendous creatures; as it is well known that the two latter could not exist in such a frigid temperature as that where their remains are met with in abundance, since these are found throughout the continent of northern Asia, to the point nearest to America, in all the great rivers. Buffon says, that some of these specimens have been also

the stupendous animal known as the Mammoth, without offering a remark of our own as to whether the elephant, or the hippopotamus, was or is the Behemoth of Scripture.

* Our readers are to understand that a *petrification* is any substance which is changed into stone, caused by a lengthened immersion in certain waters possessing the power of causing the change, or by being buried in the earth so impregnated as to affect it. Thus, a wig, a roll, a straw, &c., become stone, after having been left a certain length of time in such waters. The bones of the large animals we speak of have become petrified in those places from whence they were dug. Fossils are mineral substances which are dug out of the earth.

found in Ireland; and we have a positive proof that within the last few years they have also been discovered in Buenos Ayres. Cuvier thinks that the change of climate must have taken place suddenly; since, "had the cold," he says, "come on slowly and by degrees, the softer parts by which the bones are found still covered must have had time to decay, as we find in hotter climates." But, leaving the speculative theorems of philosophy, we proceed to facts relating to the animal itself.

There are several appellations by which it is distinguished, implying its great size; but as Mammoth is the general term, we shall adhere to it, which we believe is a Tartarian word, signifying "creature of the plain," or "animal of the earth."

Buffon says, "The prodigious Mammoth, whose enormous bones I have often viewed with astonishment, and which were *at least six times bigger than those of the largest elephant*, exists no longer."

Seven feet and a half was the height of the tallest human being we ever saw, who was exhibited as a giant. A large elephant is twice the height of such a man, and, consequently, fifteen feet high; while the skeleton of the Mammoth, six times the height of the elephant, shows an altitude of ninety feet.

In 1799, the whole carcass of a Mammoth was discovered, by a Tartar, frozen in a cliff in Siberia, near to the mouth of the river Lena, which empties itself into the Fro-

zen Ocean. Thus embedded and preserved in ice, it had probably lain upwards of three thousand years, and still continued in its inaccessible tomb for upwards of four years after it had been discovered, as we have stated above. In 1803, however, the cliff became sufficiently thawed to allow the prodigious mass to break away, and it fell. As it was not petrified, but had been frozen only, its flesh, skin, and hair, still exhibited freshness;* thus it lay at the base of the cliff for two years, a prey to bears and wolves, when its colossal bones were collected, and conveyed to St. Petersburg. Notwithstanding the ravages made by the wolves, &c., upon the carcass, much of the skin and hair were preserved; of the latter, thirty-six pounds are stated to have been gathered from the sands into which the bears had trodden it. This was of a black colour; and, upon some parts of the skin was a kind of wool, of a brownish red. It is stated of this monstrous creature, that its head and tusks alone weighed seven hundred and forty-four pounds! What the vast strength of such an animal must have been, when living, it is impossible to conceive; and much less that such a powerful race could have been subdued, or even controlled by man.

* Our readers are by this to understand, that intense cold is a preservative of flesh, &c. The Russians kill their poultry for some months before they have occasion to use it, which they pack in tubs of snow, and thus save the expense of feeding it. Meat and fish are in this way preserved and exposed to sale in the markets of St. Petersburg, &c.

ELEPHAS—THE ELEPHANT.

THE Elephant is the largest brute in existence, and possesses more sagacity than any other quadruped. His senses are all acute, his nature gentle, his attachments strong; and although his appearance is by no means prepossessing, on a first interview, yet, we no sooner become familiar with his amiable qualities than we forget his clumsy appearance, while our wonder is enhanced that so powerful a creature, conscious of its own strength, should have submitted to the drudgery imposed upon him by his master.

The height of the Elephant is from about seven or eight to fifteen feet; his bulk is immense, and his limbs appear like four colossal posts supporting the huge mass of flesh they are designed to carry, but which he does not move with pliancy nor freedom; and although he has five round toes on each foot, they do not appear to the casual observer, as the feet themselves are scarcely broader than the legs; the joints of the two hinder of which, unlike those of the horse, &c., bend forwards like the joint of the human knee. His neck is so thick and short, that he is compelled to turn round to look behind him; his forehead is broad and high, his back somewhat arched, ending in rather an abrupt slope towards the tail, at the end of which is a long tuft of hair. His weapons of defence are his tusks and proboscis, or trunk; the former proceeding from the upper jaw, and

extending to the length of from three to five or six feet, curve upwards from the roots to the points. They sometimes become so inconvenient to him from their weight, that he is fain to rest them upon anything he can place them on.

But it is the trunk of this animal that forms his chief external peculiarity, and with which he can not only defend himself in the most effectual manner, but administer to his necessities with the greatest ease and convenience. This trunk is not only an organ of smell, but of touch or feeling, also; and in both these senses the Elephant is particularly delicate. It is a lengthened pipe, composed of nerves and muscles, with an internal division of flesh which forms two nostrils: the under part is covered with projecting particles which strengthen the firmness of its grasp; and at the extreme end is an extension of a few inches long which answers every purpose of a finger; by which the creature can pick up the most minute objects, whether round or flat, and can readily take a sixpence or a pin from the ground. He can bend this trunk in all directions, and by it he conveys both food and drink into his mouth.

His whole body is encased in a very thick hide, which has been, not unaptly, compared in appearance to the bark of an old tree. It is not covered with hair (although there are some exceptions) like the skins of other animals; and he seems, when in confinement, from the awkwardness of his gait, as though he were in a suit of mail, which does

not allow him to move with freedom. Incrustations which frequently appear upon the skin are attended to by his keeper, who rubs the parts with oil and adopts other means of affording him relief.

His eyes, though remarkably small in proportion to his bulk, are nevertheless quick, vivacious, and expressive of his passions; but his ears are extremely large, and hang down like two handkerchiefs; indeed he may be almost said to use them as such, since he moves them so that they protect his eyes from insects or dust. His colour is a dirty ash, or slate, sometimes approaching to black; and although a native of both Asia and Africa, it is in the former only where he attains to the largest growth; where he is the most highly valued, and where he has exchanged his native wilderness and the freedom of nature, to become the educated and obedient slave of man. In Africa no pains have been taken to reduce him to a state of servitude, where he is dreaded only for his devastations on the lands of the husbandman; since, where a troop of Elephants appear, the effects of industry are quickly destroyed, and whole plantations at once devoured and trampled under foot.

We have said the Elephant conveys both his food and drink into his mouth with his trunk, which he thus uses as a hand. With this he strips the leaves and fruit from trees, culls his favourite blossoms, plants, and roots, and turning the ends of it into his mouth, he therein receives the herbage previously collected. He also sucks up water into his

trunk, which he then in like manner turns into his mouth, and blows down his throat. He is an excellent swimmer, and is fond of bathing in rivers, into which he will dive and remain a considerable time under water, the end of his trunk only appearing above the surface of the stream, to allow of his breathing. We have seen these animals thus engaged when no part of them could be discerned but a few inches of their trunks. He also frequently uses it to spout forth water, previously drawn up, over his body, to drive away the flies from such parts of it as are not callous to their attacks; and for which purpose we have also seen him collect a quantity of dust which he would blow out of his trunk to effect the same object; he will also use the branch of a tree as a sort of fan to protect himself from the annoyance of insects. He is a long-lived animal, and is about twenty years in arriving at his full growth.

There has been much doubt expressed as to whether a calf Elephant sucks through its trunk, in the same way in which it takes in water; but the trunk is not used for that purpose, the young one sucking with its mouth, using its trunk only upon such occasions to compress the udder, which in the female Elephant is situated between the fore legs. The calf is very playful when young, and its mother is ever ready to defend it with the utmost vigour and affection.

ILLUSTRATIVE ANECDOTES.

WE give the following as we received them from an Elephant-catcher, and afterwards mahout, or driver.

The Elephant, in a wild state, is never the first to seek an enemy, although of determined courage when attacked, and persevering in his resentment of aggression. These animals roam the forests in troops, the young and weak protected by the stronger; and, in seeking their subsistence, it is only to their master, man, to whom they prove an injury; since whenever one of them happens to enter a plantation it immediately calls the rest to share in its good fortune, when, as said above, cultivation is destroyed; and if resistance be offered to them a fatal vengeance is sure to follow; since they would not rest content with overthrowing habitations, but the lives of their occupants would pay the forfeit of their temerity.

As it better answers the purpose to catch them when full-grown than to breed them, every individual Elephant employed for domestic service has to be first captured from the forest. To effect this object a space of ground is enclosed by strong piles, or posts, at short distances from each other, and this enclosed space runs so narrow at one end as to allow only one Elephant to pass through it at a time. A tame one, well trained to the business, is then sent into the forest, where it utters a cry of invitation to the yet unsubdued of its race; and the first which is decoyed by it is

led through the enclosure by its tame guide until it passes through the narrow part, which is then closed upon it by men previously stationed to secure it. On finding itself thus betrayed, and a prisoner, its rage is at first excessive; but as it is ineffectual, it at length becomes exhausted, when art is tried to soothe it into submission. Two other Elephants are introduced to the captive to assist in *instructing* it, and which, if it still prove refractory, they accomplish by each of them taking (to use the language of our informant) "a fathom or two of chain and giving it a good thrashing." The great docility, however, which is inherent in this generous creature, quickly induces him to submit, when he becomes as obedient and as strongly attached to those who control him as his fellows.

In proof of the sagacity of the Elephant in recollecting a promise, the mahout (as above) related the following circumstance. Attached to the Indian army when on its march, they had to overcome several intricate and dangerous passes, in one of which, he said, the carriage of a gun completely stuck, gun and all; and which only an Elephant could remove. Our mahout urged his own animal to make the necessary exertion to draw out the gun; and promised, if he did so, that he should have a good allowance of grog, to which he was very partial; and thus encouraged, the creature after some labour cleared the gun.

It was not long afterwards that a similar accident occurred; and the same desire was repeated to the Elephant as

before, with a promise of a larger portion of grog than on the former occasion if he would, this time, extricate the gun; but the animal turned a deaf ear both to entreaties and promises (since it is to be remembered he clearly comprehended the meaning of both), and threats were resorted to by the exasperated mahout. At length, the Elephant became as angry as his driver; and approaching the half prostrate gun-carriage, he placed his foot upon it and turned it completely over. The mahout had neglected to give him the grog which had been previously promised, and the animal adopted this most effectual means of reminding him of it.

The Elephant in a wild state is, as already observed, a dangerous enemy to attack, not only from its strength, but from the number of them which herd together; and it is only an occasional straggler that the lion or tiger cares to engage with. In hunting the two latter, the Elephant is used by oriental sportsmen, when he evinces an almost instinctive terror of these creatures. Father Tachard speaks of a combat between three Elephants and a Tiger, of which he was an eye-witness at Siam; where, for the amusement of the king, they were brought to engage. The heads of the Elephants were defended by a sort of masks, and they were allowed to strike the tiger several times before it was loosed from the cords which confined it; and after it had been thus weakened it sprang at the trunk of one of its assailants, which the Elephant curling up, received the crea-

ture on its tusks and tossed it into the air. The three Elephants were then set upon it, neither of them as it appeared being a match for the tiger alone.

It would scarcely be credited with what extreme caution the Elephants will move about on a dark night, lest they should injure any of the soldiers of the army to which they are attached. While the men lie sleeping on their guns in the open air, the Elephants feel all about with their trunks, ere they will take a step, lest they might tread upon any one.

Captain Mundy, in speaking of his entrance into Lucknow,* tells us that "In some of the narrow passes the crush was awful; the Elephants trumpeting, jhools and ladders tearing and crashing; and now-and-then the projecting roof or verandah of a house carried away by the resistless progress of these powerful animals. The strongest Elephants and most determined mahouts, held the first places in the cavalcade, next to the king, the commander-in-chief, and the resident. The princes royal were not unfrequently most unceremoniously jostled; and as for the minister, he was generally among the 'unplaced,'" and yet, where "princes were jostled" by the movements of a troop of domestic Elephants, not one of them but was careful of doing personal injury to the wretched beggars who mingled with them.

* Lucknow is the capital of Oude, a province of Hindoostan, and situate on the river Goomty.

“The streets of Lucknow,” says Captain Mundy, “are extremely narrow; so much so, as in some places scarcely to admit more than one Elephant to pass at a time. The houses, from the windows of which were displayed silks and draperies, were, as well as the streets, completely covered with spectators; some of them employed in greeting their sovereign with profound salaams; the greater proportion, however, consisting of wretched-looking beggars, who followed the cavalcade, vociferating for charity, and greedily scrambling for the handfuls of rupees which were, from time to time, thrown by the king, the commander-in-chief, and the resident, among the crowd. It was curious to see with what care the Elephants avoided treading upon or injuring some of these paupers, who, in eager pursuit of the scattered largess, *fearlessly threw themselves under the feet of these animals*, the slightest touch of which would have shattered a limb.”

During an exhibition of wild animals by Waring & Co., in the winter of 1847-8, in Philadelphia, a scene of tragic interest occurred, showing the disposition of the Elephant when aroused to resent an injury. The keeper William Kelly, of New York, whose acquaintance with Columbus was only short, was employed after one o'clock in paring his feet and otherwise preparing him for exhibition in the afternoon, — when, the animal becoming restive, Kelly left him and procured a fork with which to chastise him; but the sagacious animal, seeing him return-

ing with the weapon, screeched, and instantly seized him with his extended trunk and threw him twice into the air, and then left him, foaming with rage. He instantly knocked down the cages in which were a hyæna and a wolf, both of which escaped therefrom, and ran several times round the ring before they were captured and secured, which was done without any injury to the persons who performed that daring and dangerous act—the animals being dreadfully alarmed at the screeches of Columbus and his ungovernable fury. It was truly a fearful time; for all the animals, from the King of the Forest down to the most insignificant reptiles, were struck with consternation and awe, and each gave vent, in its own peculiar manner, to the dread that pervaded it.

This noble Elephant, seeing Mr. Waring and his men taking measures to secure him, rushed towards them, when they escaped up the seats for the audience, partly followed by him; but he was compelled to withdraw, as the flooring and seats gave way under his ponderous weight. Mr. Driesbach, Mr. Waring, and others, then obtained a cable, which was placed in the centre of the ring; and finally, after much manœuvring, they succeeded in noosing him by the legs. They then retreated towards the southerly corner of the menagerie, where the animal followed them; managing to elude him, they, after great efforts, and striking him very severely with pitchforks, got iron manacles on his legs. At length they got him into the

middle of the ring. He was then apparently humbled, having bled profusely and suffered considerably. He tore up and broke all the seats in the ring that came within his reach, with as much ease as if they had been merely pipe-stems.

The unfortunate keeper, Kelly, had his right hip and thigh dreadfully fractured. He was conveyed to his lodgings, where his leg was amputated two hours afterwards. Two or three days after, he died from the effects of the injuries received. The animal is still living, and, under the treatment of his old keeper, who was sent for by the proprietors, seems perfectly tractable, and performs his usual round of daily duties.

THE RHINOCEROS.*

THE Rhinoceros is, in bulk, the next quadruped in size to an ordinary elephant, but with shorter legs. The length of its body is about from ten to twelve feet. Its head is somewhat in shape like that of the hog, except towards the snout; and, like the hog, it is fond of wallowing in swampy places, of eating roots and shrubs, and of living lazily and at peace, if unmolested. It is protected by a

* *Rhinoceros* is the Latin appellation for this animal.

hard skin, of a dirty brown colour, which, over its neck, shoulders, and hind-quarters, appears in folds, like coats of mail, and would resist a bullet. Its tail is rather ineagre; the legs are muscular and thick, and the hoofs are divided into triple points.

We have said that the appearance of its head is somewhat like that of the hog; but the upper lip is much longer than the under one, and terminates in a point. Its eyes are small, and so placed that it can only see in a direct line, and not on either side; its ears are pointed and erect, and its scent acute. His snout is rather broad, and furnished with a horn (sometimes with two), which, so advantageously placed, renders him a potent enemy to contend with, and a match for any beast of the forest.

The Rhinoceros is a native both of Africa and Asia, and of which there are, at least, four varieties; two of these being provided with one horn only, the others with two. He is fond, we have said, of herbage; but "besides the tree," says Bruce, "capable of most resistance, there are in the vast forests, during the rains, trees of a softer consistence, and of a very juicy quality, which seem to be destined for its principal food. For the purpose of gaining the highest branches of these, his upper lip is capable of being lengthened out, so as to increase his power of laying hold with it, in the same manner as an elephant does with his trunk. With this lip, and the assistance of his tongue, he pulls down the upper branches which have most leaves,

and these he devours first. Having stripped the tree of its branches, he does not abandon it; but, placing his snout as low in the trunk as he finds his horn will enter, he rips up the body of the tree; and when he has thus prepared it, he embraces as much of it as he can in his monstrous jaws, and twists it round with as much ease as an ox would do a root of celery.

The hunters, when in pursuit of the Rhinoceros, are careful in approaching him on the leeward side, lest he should discover them by the scent. Indeed, we see no just cause to disbelieve those travellers who have asserted that the lion and tiger are less inclined to cope with this formidable creature, than with any other inhabitant of the forest. When roused, he is more active than the elephant, and defends himself more effectively. In a combat between these two animals, which were let loose upon each other for the diversion of Emanuel,* king of Portugal, the Rhinoceros conquered his opponent; and we are assured that such is generally the case when they singly engage.

The natural fierceness attributed to the Rhinoceros by some writers is imaginary; since, unless first provoked or pressed by hunger, he is inoffensive, either in a wild or an artificial state. We have seen several living specimens, all of which corroborate the assertion.

* Surnamed "The Great." He ascended the throne A. D. 1495, his captains sailed to Hindoostan and Brazil.

CAMELUS—THE CAMEL.

THE Camel and Dromedary being two varieties of the same genus, as such we shall speak of them under the present head.

The Bactrian* Camel has two humps, is chiefly met with in the countries of the Levant, and is much larger, and stronger than the Arabian Camel, or Dromedary; it has shorter legs, and is capable of carrying a much greater weight; its burden not unfrequently being nine or ten hundred pounds. The lean swift Arabian Camel, called Maherry, or *el Hierie*, is used for despatch; and will, we are assured, travel one hundred miles in a day for several days together. The services of this creature, however, are confined to a comparatively narrow sphere; since it is the Dromedary which is employed throughout the deserts of Arabia, Persia, a large portion of Africa, Hindoostan, and China. He is of a lighter form, with longer legs than the other; and although he cannot carry so heavy a burthen, he is nevertheless more fleet, and will carry a load of six or seven hundred pounds.

He has one hump only; but as already observed, is the

* Bactria, or Bactriana, was the ancient name for that province of Persia now called Sablestan, the capital of which is Bost, about thirty miles south of Candahar.

animal in most general requisition by all who have occasion to traverse the burning plains of the desert.

The Camel is nowhere to be found in a state of nature ; but is, in all places where he is known, a patient drudge. What the deer is to the Laplander, the Camel is to the Arab ; nor could either, perhaps, continue to exist, in their respective inhospitable regions of freezing cold and burning heat, but for the bountiful care of Providence in furnishing them with such animals as they possess ; and which, in themselves, not only supply all their necessities, but convey them from one place to another, in climates where no other creatures could thus aid them.

The flesh of the Camel, when young, is eaten by the Arabs, and is said to be as delicate as veal ; its milk is plentiful and nourishing, and when fermented produces a spirituous liquor ; its skin is applied to many useful purposes ; and its hair, which is shed annually, is of a more delicate texture than the finest wool ;—even its dung is useful, both for fuel and as a litter for horses.

The average height of the Arabian Camel is about five feet six inches from the top of the shoulder to the hoof, and he is about nine or ten feet in length. His hump is placed more in the centre of his back than are either of the two of the larger kind ; and, with longer legs, his body also appears smaller and thinner than the other : he is covered with hair, which is very long about the neck, the neck itself being long and crooked ; the head is small, and some-

what resembling that of the sheep; while his foot is broad and flat, which spreads as he places it on the ground, giving firmness to his tread upon the loose sands that he is compelled to traverse. His colour varies, being of a light brown, white, and sometimes almost black.

The Camel ruminates; but, in addition to the four stomachs of which we have spoken, as possessed by the ox and other animals that chew the cud, the Camel has a fifth, which is composed of small hollow spaces. This stomach he fills with water, which will supply him for many days; since he can cast it from each of the hollow spaces, singly, by which means he is furnished from his own resources with a moistening liquid, that enables him to pursue his fatiguing journey where any other beast would perish.

Nothing can exceed the temperance, patience, and perseverance of the Camel. He often fasts for several days together; eats sparingly, and of the coarsest food; and is often the surest guide across the desert, even to those engaged to conduct him—by whom he is expressively called “the ship of the desert.”

ILLUSTRATIVE ANECDOTES.

CAMELS, when very young, are taught to lie down and to rise, preparatory to their bearing heavy burdens, which they afterwards kneel down to receive upon their backs.

Their legs are first bent under their bellies by their drivers, who load them by degrees, according to their strength. They will journey the day throughout, loaded, at the rate of about three miles an hour, according to Macfarlane,—who says, that in the flat valleys he has calculated their pace with a watch in his hand, and found that they did not vary in their speed during the whole day, but went on at the same rate at the end as at the beginning. We have, however, seen them considerably exceed this pace, bearing heavy loads. We have watched them while refreshing themselves in a stream before they started on their journey; and, although they proceeded at an easy pace, their drivers moved at the rate of four miles an hour, at the least, in keeping up with them.

The Camel, as observed, can sustain a long abstinence; during which period his hump decreases in substance, nourishing his body. A young one, while it is suckled, is without the hump, as it then receives sufficient for its support. Although straightened for food, the Camel still labours for his master; but if he overload him, the creature will not rise until his burden be lightened.

Sonnini says that he has seen Camels resent the impatience of their riders by stopping short, uttering cries of rage, and turning round their long necks to bite them. In these circumstances the man must be careful not to alight, or he would infallibly be torn to pieces. He must also refrain from striking his beast, as that would increase

his fury. Nothing can be done but to have patience, and appease the animal by patting him with the hand,—which frequently requires some time, when he will resume his wonted pace of himself.

Neither Turk nor Arab usually ill treat these excellent animals, but often caress and pet them; yet, in Asia Minor, Camel-fights are still exhibited for the amusement of the vulgar. The combatants are, however, muzzled, since their bite is so severe that they nip out a piece of the flesh when enraged. These combats take place in an open space, where the animals are urged to the attack, in which they strike each other with their heads, sideways, entwine their necks, and wrestle with their fore-legs, somewhat resembling human contests of strength and agility. Indeed, the object appears to be in both cases alike to throw down an adversary; the crowd cheering and triumphing in the success of their respective favourites.

The Arab on his trusty Camel fears not, and defies the pursuit of his enemy, though the latter should be mounted on the fleetest courser, and flies to the security afforded by his dreary solitude.

To the Camel, the merchants and other travellers who are compelled to cross the desert intrust their property and lives; since on his patience and constancy the safety of both, under Providence, depend. This assemblage of travellers is called a Caravan; and is sometimes composed of many thousands of persons, and Camels which convey

them and their goods. They proceed thus upon their journey in large companies, as a more certain protection against the attacks of the Bedouins, or robbers of the desert. The Camels follow each other in long lines, each of which is often headed by a man on an ass, with a bell round its neck; many of the Camels also have bells appended to their saddles, without which those accustomed to their music would not go forward. They thus proceed until they arrive at their stations in the evening; which, when they can be obtained, are where herbage and fresh water are to be had, and which the Camel will scent at a distance. A few thistles and spear-like leaves, which would lay open the hand but to touch, are preferred by the Camel, when they are to be found, after his burden has been removed for the night; and in the morning he obediently kneels down again to receive it, and to pursue his way through the trackless desert under a burning sun.

THE LLAMA.

THE Llama is a native of South America, and is called the American Camel, to the services of which the inhabitants of that country are much indebted, although it certainly will not bear a comparison with the camel pro-

viously described. It is about from four to four-and-a-half feet in height, from the hinder part of the back (which forms an irregular arch, sloping upwards from the neck) to the hoof; and about from five to six feet in length. Its neck is long and graceful, its head small; and its nostrils consist of a slit which it expands and closes at will, and from which, when offended, it darts forth quantities of saliva, or spittle, which is its only means of showing its resentment. The hoofs are cloven, the tail is short, and the body is clothed with a fine wool. Its colour varies from brown and almost black, to white.

The Llama is employed by the inhabitants of Chili, Peru, and other parts of South America, as a beast of burthen; and will carry from seventy to a hundred pounds weight. Many thousands of them were thus employed in removing the ore from the mines of Potosi, when they were in full operation.* They are patient and temperate, requiring little or no attendance of their masters; since, supplied by nature with sufficient moisture, they will go a long time without water, gather for themselves what herbage they require, wherever they may chance to find it, and will thus travel for several days over almost inaccessible rocky eminences in safety.

At night the Llama chews the cud; and thus he proceeds

* Potosi is a town in the southern division of Peru, called *Los Charcos*; it contains the best silver mine in the world.

until completely tired out, when he will not stir another step, but lies down upon his belly, and makes a halt for twenty or thirty hours together. If urged by his driver upon such occasions, he will not be compelled to resume his labour until he has rested, but vehemently spit at him, of which those who have the direction of Llamas are much afraid, attributing to the saliva, so emitted, a poisonous quality. The ladies of Peru prefer riding upon these gentle creatures to any other animals, in consequence of their easy action.

This useful and willing servant thrives either in a warm or cold climate; and in a wild state he appears to be the most vigorous, snuffing up the pure air on the lofty Andes,* where they feed in numerous herds; and where, like the wild horse of the plain, one of them acts as a sentinel to warn the rest of approaching danger, when they start off with great rapidity. The hunters pursue them both for their flesh and wool; but their only chance of success is on meeting them upon the plains; since, if they once gain the mountains, neither man nor dog can follow them, while they fearlessly and nimbly gain the summit of precipices with the agility of the antelope.

* The Andes, or Cordilleras, are an immense chain of mountains which run the whole length of the western coast of South America, for an extent of 4,300 miles. The highest of these is called Chimborazo, which is 20,608 feet high, of which about 2,400 from the top is always covered with snow. They are the most extensive and lofty mountains in the world.

THE ALPACA.

THE Alpaca, or Paco as it was called, is also a native of South America, and appears to possess the attributes of the Llama, although it is much smaller, and has more wool of a superior quality, of which articles are manufactured that obtain a high price.

We have seen a living specimen of one of these beautiful creatures, which was partly of a grayish white colour, and partly of a pale pink. So beautiful indeed, is the colour of their wool that it is wrought without being dyed.

Cuvier says that he had one which measured four feet four inches to the summit of the head; three feet three inches to the shoulders; and three feet nine inches from the breast to the tail. Its neck was gray, and the breast, back, and flank brown. It spat, and bleated like a lamb: and the hair was long and soft like that of the Angora goat. He states it to be his opinion that this animal might be introduced into the domestic establishments of Europe with great advantage, on account of the excellence both of its flesh and wool.

The animals of this kind in South America, called *Vacunia*, or *Vicugna*, and also the *Guanaco*, are of the same kind as the two last described.

CAMELOPARDALIS—THE CAMELOPARD.

THE Camelopard, or Giraffe, (from the Arabic, *Siraff*,) although known to the ancients, and captured for the purpose of adding to the barbarous exhibitions of Rome,* has rarely ever been introduced into the United States.

The height of the male Giraffe, in a natural state, is about eighteen feet from the hoof to the top of the head, whereon he has two small erect and obtuse protuberances, like horns, which appear to be covered with a tough skin. The shape of his head is somewhat like that of the race-horse, yet slender as the stag's; his eye is dark and full; while his tongue is so peculiarly formed that he is enabled to extend it a considerable length; and by encircling with it the tops of the light branches and leaves of the trees upon which he feeds, he thus obtains the chief part of his food. His neck, when he stands erect, is graceful and swan-like; his shoulders are high, and fore legs very long; the back slopes downwards from the bottom of the neck to the insertion of the tail, which is thin, with a tuft at the end. The fore legs are about two-fifths of the creature's height, since they

* Pompey, the triumvir with Crassus and Cæsar, had ten of these animals at one time exhibited at the theatre, where wild creatures were let loose upon each other. Pompey was defeated by Julius Cæsar, at Pharsalia, from whence he retired to Egypt, where he was slain B. C. 47, in the 59th year of his age.

were just six feet in one which was fifteen feet high, as measured by Mr. John Campbell. The female is smaller than the male, but to both sexes the horns, as noticed above, are common.

The body of the Giraffe is remarkably short, according to its extreme height, and is not the length of the neck from the top of the shoulder to the tail; the legs are slender and have a tuft of hair on the knees; the hoofs are hard and cloven, like those of other animals that chew the cud; and the colour of the skin is a light ash, or dun, marked all over with dusky red, or chocolate-coloured spots. In their native solitudes they are hunted by the Arabs for their flesh (which is good eating) and their skins. They fly from the least noise, and ascend a precipice with the swiftness and security of the goat, the hoofs of both being similarly formed; but though ever ready to retreat, yet, if closely pressed, this timid creature then uses its hoofs in its defence with the rapidity of lightning, and often not without effect.

M. Thibaut (in a letter dated the 2d of January, 1836) says, "I availed myself of the emulation which prevailed among the Arabs; and as the season was far advanced and favourable, I proceeded immediately to Kordofan.* It was on the 15th of August, 1834, that I saw the first two Giraffes. A rapid chase on horses accustomed to the fatigues

* Kordofan is a country of Africa lying to the westward of Nubia, or Sennaar.

of the desert, put us in possession, at the end of three hours, of the largest of the two; the mother of one of those now in my charge. Unable to take her alive, the Arabs killed her with the blows of the sabre, and cutting her to pieces, carried the meat to the head-quarters, which we had established in a wooded situation; an arrangement necessary to our own comfort, and to secure pasturage for the camels of both sexes which we had brought with us in aid of the object of our chase. We deferred until the morrow the pursuit of the young Giraffe, which my companions assured me they would have no difficulty in again discovering."

On the following morning the party started at daybreak, 'and at nine o'clock in the morning," says M. Thibaut, "I had the happiness to find myself in possession of the Giraffe." He is silent as to the means adopted in its capture, but says "a premium was given to the hunter whose horse first came up with the animal; the chase having been "pursued through brambles and thorny trees."

He thus proceeds:—"Possessed of this Giraffe, it was necessary to rest for three or four days in order to render it sufficiently tame. During this period an Arab holds it at the end of a long cord. By degrees it becomes accustomed to the presence of man, and takes a little nourishment. To furnish milk for it, I had brought with me female camels. It became gradually resigned to its condition, and

was soon willing to follow, in short stages, the route of our caravan.

“The first Giraffe, captured at four days’ journey to the south-west of Kordofan, will enable us to form some judgment as to its probable age at present, as I have observed its growth and its mode of life. When it first came into my hands, it was necessary to insert a finger into its mouth, in order to deceive it into a belief that the nipple of its dam was there; then it sucked freely. According to the opinion of the Arabs, and to the length of time that I have had it, this first Giraffe cannot, at the utmost, be more than nineteen months old. Since I have had it, its size has fully doubled.”

M. Thibaut tells us that the Giraffe’s “first run is so exceedingly rapid, that the swiftest horse, if unaccustomed to the desert, would scarcely come up with it. If it reach a mountain, it passes the heights with rapidity; its feet (as already observed) being like those of the goat, endowing it with the dexterity of that animal; and with such incredible power it bounds over the ravines, that horses cannot, in such situations, compete with it.”

The Giraffe is fond of a wooded country, where, as we have said, leaves of trees are its principal food; its conformation allowing it to reach the tops. The one spoken of above, killed by the Arabs, measured twenty-one (French) feet from the ears to the hoofs. Green herbs are also very agreeable to this animal, but its structure does

not admit of its feeding on them in the same manner as our domestic quadrupeds, such as the ox and the horse. It is obliged to straddle widely; its fore-feet are gradually stretched apart from each other, and its neck being then bent into a semicircular form, it is thus enabled to collect the grass; but on the slightest noise the timid animal raises itself with rapidity, and has recourse to immediate flight. It eats with delicacy, taking its food leaf by leaf; and, unlike the camel, rejecting thorns and coarse herbage.

URSUS—THE BEAR.

OF this animal there are several varieties; as, the White or Polar Bear, the Grizzly Bear, the Black Bear, and the Brown Bear. Of these the White Bear is considerably the largest, and forms an exception to the rule that the animals of cold climates decrease in size as compared with those of the warmer; since, while dwelling in the icy regions of Greenland and Spitzbergen, he grows to the height of from four to five feet, and from eight to ten in length. He has a long nose and short ears; his legs are also long, each foot being furnished with five large claws; his tail is short, and his whole body covered with long, yellowish-white hair. Great numbers of these creatures

are met with in the high northern latitudes, where they chiefly subsist on seals and whatever fish they can catch. They sometimes are seen floating upon masses of ice, in search of prey, of which an occasional dead whale forms a part. Greenland, and the most frigid points of northern discovery, are the haunts of the Polar Bear, which there reigns with a power as despotic as the lion in the desert. Unused, however to the sight of man, the creature is more inclined to fly from his attacks than to meet them; but if he cannot do this, when hotly pressed he will make a desperate resistance; indeed, the timidity ascribed to him by some travellers is disputed by others; but certain it is, that his great strength and voracious appetite render him a formidable opponent.

It may readily be supposed that he will prey upon foxes and hares; but as he must first *catch* them, we have some doubts of a Bear being sufficiently nimble to "clear barren islands" of these animals, as some writers, copying unsupported statements, have asserted. He will, however, dine even upon a wolf (the flesh of which other animals reject), if it come in his way; he attacks the walrus, and is an expert swimmer and diver. In seeking to gratify their hunger, the Polar Bears are so numerous off the coast of East Greenland, that, as Captain Scoresby states, they are to be seen floating on detached pieces of ice, in such large numbers as to appear like flocks of sheep.

The female, like most other female quadrupeds, is

strongly attached to her young: but there are so many marvellous stories told of this animal, that we must decline quoting them until their truth shall have been more fully confirmed.

The **GRIZZLY BEAR** is an inhabitant of North America, of about four feet in height and seven in length. He is said to pursue his prey on the ground only, and not to climb trees, as do the Brown and Black Bears. He is fierce and treacherous; fond of carnage, for which his long crooked claws are well suited; and, in seeking his prey, he fears not to attack the bison, though with varied success. He is, in fact, deemed to be the most dangerous quadruped in America.

The **BLACK BEAR** is also a native of North America, and smaller than his European fellows, being about three feet in height and five or six in length. He is fond of fruits, roots, corn, &c.; but will attack flocks and herds when pressed by hunger. He is not only to be found in the rocky eminences of Canada, but also in still greater numbers as far south as California. He is hunted for both his flesh and skin; and among the Indian tribes, hunting the Bear is an affair of no slight importance and ceremony. But the Black Bear is so closely allied, in habits and propensities, to others of his species of which we are about to treat, that we shall notice them more fully hereafter.

THE BROWN BEAR. This variety is well known in the north of Europe and Asia; his haunts are the solitary rocks and glens of the forests of Norway, Sweden, and Asiatic Russia; nor is his race wholly extinct in the Alps, where it was formerly very numerous.

As already observed, the Bear feeds upon roots and berries. He is partial to ants; and of honey he is so passionately fond, that to obtain it he will run all risks. He is, however, as great a lover of flesh as many other animals of his order, notwithstanding all that has been said to the contrary; and his prodigious strength enables him to attack and conquer with success. Falk is repeatedly quoted, in proof that "Bears may, for years, reside in the neighbourhoods of cattle, without doing them an injury." Perhaps they *may* do so; yet Falk himself says, "they will sometimes visit herds solely from the desire of prey;" and Lloyd avers (in his *Northern Field Sports*) that "young Bears *seldom* molest cattle; but old ones, having tasted blood, become very destructive."

During the winter months, the Bear retires to his den, where, from about November to April (according to the mildness or severity of the season), he remains, if unmolested, in a constant lethargy. He is generally fat when he commences his winter nap; and, during the whole period of his retirement, he takes no nourishment whatever, deriving support from his superabundance of fat only (as many writers assert), reappearing in the spring in a gaunt and

famished condition. This statement is, however, denied by Lloyd, who says, that when the Bear quits his retreat in the spring, he still retains his fulness of flesh: "the most experienced *chasseurs*," he says, "have assured me, that if undisturbed in his lair, no perceptible difference is observable in his condition, whether he is shot in the early part of the winter, or immediately before he rises in the spring." He tells us, that towards the end of October, the stomach and bowels of the animal become empty and contracted, the extremity of which is closed by a hard substance, which the Swedes call *Tappen*, composed chiefly of pine-leaves; and which, by undergoing a process in the stomach, becomes a substitute for food, until he quits his den, when the *Tappen* leaves him; he then lives upon ants and such other food as may be of easy digestion, until his stomach resumes its wonted functions, when he seizes almost everything that comes in his way. He does not attain his full growth until he is twenty years old, and will live until he is fifty. He attains to an enormous size; since Falk states that he killed one which he supposes to have weighed 750 pounds. The skin of the Bear is an article of the utmost service to the inhabitants of the North, while his flesh is also much prized, the paws and hams being considered a great delicacy.

The story of Bears existing by *sucking their paws* has probably arisen from their practice of doing so, although **not** to obtain nourishment. Lloyd says his tame Bears

were constantly thus engaged *after* they had been fed, covering their paws with saliva that looked like milk; and hence, he thinks, arose the vulgar error of Bears sucking milk from their paws. He believes that the Bear obtains a new skin on the balls of his feet during the winter months; and which, by licking, is assisted in its operation.

ILLUSTRATIVE ANECDOTES.

THE Bear swims and climbs well, and is fond of doing both, for his amusement as well as for prey: his senses of seeing, hearing, and smelling, are excellent; and his strength is so great as to enable him to carry a small horse in his fore paws, with which he will walk away upon his hinder feet. Neilson, a Swedish writer, says, that a Bear was thus employed, which actually carried a dead horse "along a small tree lying across a river."

Lloyd tells us, that a peasant of Dalecarlia,* one day, in a forest, fell in with a young Bear, which had taken refuge in a tree; this he shot at and brought to the ground; but his triumph was of short duration, for the cries of the cub soon brought the mother, furious with rage, to its rescue. Having discharged his gun, he had nothing wherewith to defend himself at first; he was quickly overpowered, and

* Dalecarlia is a province of Sweden, near Norway; it is mountainous, yet contains fertile pastures; but its chief wealth is its mines of silver, copper, and iron, some of which are of an immense depth.

desperately bitten in every part of his body. He would inevitably have lost his life, had not the Bear at length severely wounded herself upon the long knife which every peasant of the north carries attached to his girdle. Feeling the pain, she turned from him; and spying her cub on the ground, which now lay dead, she took it up in her mouth and carried it off, to the no small joy of her antagonist.

The barbarian practice of baiting Bears by setting dogs at them, was long a favourite diversion, and was extensively practised until within the last thirty years: modern education, however, has improved the tastes and feelings of those who could delight in such cruel exhibitions, and they are now almost unknown; as are, also, the no less disgusting cruelties exercised in forcing Bears to dance, which were sights of common occurrence through our public streets. But few people who encouraged the tormentors by whom they were led, knew or thought of the agony to which they were subjected by their brutal masters; amusing themselves only in looking at their awkward movements in shuffling about upon their hind feet, tumbling head-over-heels, and other clumsy tricks, which fear impelled them to perform at the bidding of their keepers. Yet in training a dancing Bear to this state of obedience, he was first almost starved, and shockingly beaten; an iron ring was then forced through the cartilage of his nose, to which a chain was affixed, by which he was drawn up to stand erect, while plates of hot

iron were placed round him, so that he dared not to rest upon his paws; and during these cruelties, a pipe and tabour were sounded, which he afterwards showed that he understood to be the signal for him to commence his unnatural performances. Who would, knowingly, encourage such inhuman acts as these? We hope they have ceased for ever.

We will conclude our anecdotes of the Bear with a recital of the somewhat marvellous adventures of Colonel Crockett, a backwoodsman of Tennessee, who is stated, with his friend John Bradshaw (also of the Western District), to "have killed about fifteen hundred Bears, exclusive of a proportionate quantity of other game."

Colonel David Crockett has certainly been one of the greatest American hunters of his day: but before we enter upon any details of his exploits, we must here premise, that in the neighbourhood of his dwelling (although previously to his residing there), there was, in the year 1812, a tremendous earthquake. The section of country east of the Mississippi where it occurred, is called the *Shakes*, and by this name only it is now understood; these *Shakes*, we are told, "form the best hunting-grounds in the West."

The narrator from whom we are about to quote, says, that he received the statement from Colonel Crockett himself; and of which the following is a brief narrative.

It was the custom of the Colonel to spend a part of

every winter in Bear-hunting, generally taking a friend with him to partake of the sport, which was sure to be met with at the *Shakes*; and where he pitched his tent, and hunted in the wilderness until he procured "as much meat" as he wanted.

In the year 1824-5, he tells us that he and a friend were thus engaged, for several days, with great success; when, one evening as they were returning to their tent, their pack-horses laden with the spoils of the forest, and their "dogs trotting lazily" after them,—“old *Whirlwind*” opened, that is, gave notice by his barking that another Bear was at hand. The Colonel then bade his friend lead the pack-horses to the tent;—away went the dogs in pursuit of the Bear, and the Colonel himself after the dogs.

The Bear ran up a ravine, or hollow pass, which had a bend, and the Colonel ran across, with the intent of meeting him as he came out; but it was now almost dark, and the wind blew intensely cold. “Presently I heard the old Bear,” says he, “rattling through the cane, and the dogs coming on like lightning after him; they dashed by me, and, as they all ‘broke out,’ the woods re-echoed to their voices.”

The dogs now seized the Bear; the Colonel ran as fast as he could towards the spot where he heard them fighting, which was but a short distance before him; but ere he came up with them master *Bruin* had broken away and got off, the dogs still pursuing him. Thus the chase con-

tinued, the dogs every now and then bringing their game to a stand, when the fight was renewed; the Bear then breaking away as before, and the Colonel running as fast as he could, in the hope of coming up with the dogs while they held their opponent at bay; and thus, in the dark, through canes and briers, for two or three miles, he followed, until he thought himself sure of his prize, having got within about fifteen or twenty feet of where both Bear and dogs were once more fighting:—but here he was again wofully mistaken. It had become so dark that he could scarcely tell a Bear from a dog; yet he still sought to come up with them, when he found himself at the verge of a creek which separated him from his hopes, since the Bear and the dogs were on the other side of it. How deep it might be he knew not; but dark and cold as was the night, he felt that it was too late for him to turn back, and that his only chance of not losing himself was to keep within hearing of his dogs. Thus situated, he held up his gun and dashed into the water, through which he waded, and scrambled out on the other side. The combatants had, however, kept up their running fight, and the poor Colonel could only follow them by their noise, which he did,—“as near,” says he, “as I could guess, from four to five miles;” when the Bear, wearied out, climbed a tree; “and,” continues the Colonel, “I was mighty glad of it.”

He then went up to the spot, but it was so very dark he could not see anything distinctly; but, looking up the tree

(so placing himself that it was between him and a star), he perceived a part of it looking darker than the rest, at which he pointed his rifle, at a venture fired, and down came the old Bear—though but little harmed, since he and the dogs renewed the fight as furiously as ever. There were six of the latter, now, upon him altogether; and they thus continued fighting and rolling about, near the very feet of the Colonel, for nearly an hour; while all he could distinguish was one old dog which was white, while he and his fellows occasionally let their master know when they were getting the worst of the battle by their loud yells, caused by too close a hug from the paws of the Bear.

“I had my knife drawn, to stick him, *whenever he should seize me*,” says the Colonel; “but, after a while, Bear, dogs and all, rolled down a precipice just before me, and I could hear them fighting, as it were, in a hole.” He then reloaded his rifle, and, laying himself down at the brink of the opening, felt about with it until he touched the Bear, when he again fired upon him; but, if the animal were wounded, he seemed but little the worse; for out of the hole he bounced, the dogs after him, and all fighting, as the Colonel says, “harder than ever.”

He now laid down his gun, and again drew his knife, but Bear and dogs were in such close contact, all rolling about together, that they seemed to be in a sort of moving tump; and while the Colonel stood with his knife, thus

useless, in his hand, down went the combatants, altogether, once more into the hole, fighting, growling, and yelling.

The Colonei now resolved on again loading his rifle, in the hope of being more fortunate in another effort to shoot the Bear; and thinking himself tolerably accurate as to the position in which the animal appeared to lie in the hole, he felt for his gun; but he felt in vain: he had moved from the place where he had laid it down; nor could he, by feeling about, recover it. This, it may be supposed, must have been, under such circumstances, a sad disappointment; but, finding a stick, he reached down the hole, to ascertain, as nearly as might be, the actual position of the Bear; and having satisfied himself as well as he could on this point, he resolved on one of the boldest adventures that ever entered into the head of a Bear-hunting backwoodsman.

Our readers have seen what perils he had already encountered in pursuing this chase;—it was now ten or eleven o'clock, on a frosty winter night; and he alone in the wilderness, at a distance of about thirty miles from any settlement inhabited by his fellow-beings;—the only living soul he could suppose to be at a less distance, was the friend who had set out with him to hunt, and who had gone with their pack-horses to the tent; but, where this friend, or the tent itself might be, he knew not; yet, thus situated, far from all human aid,—on a dark night, in the depth of winter, and in a forest,—this bold hunter resolved on descend-

ing into a chasm formed by an earthquake wherein a wild Bear was contending for his life against half-a-dozen resolute dogs!

He knew, as he himself tells us, that the "Bear was in a crack made by the *Shakes*; but how deep it was, or whether, if he got in, he could get *out*, he could not tell." He was at this time sitting down, just over the Bear, thinking of the hazard of the experiment he was about to make, when some of his dogs let him know by their cries, that they were in a perilous situation. This, it might have been supposed, would have awed a less determined sportsman; but the Colonel rose, and certainly with a courage which none, we think, but an experienced hunter of the forest could possess, he let himself down the chasm, and alighted just behind the Bear. "Where I landed," says he, "was about as deep as I am high; I felt mighty ticklish, and I wished I was *out*: I could not see anything, but I determined to go through with it. I drew my knife, and kept feeling about with my hands and feet until I *touch'd* the Bear; this I did very gently; then got upon my hands and knees, and *inched* my left hand up his body, with the knife in my right, until I got pretty far up, when I piunged it into him; he sank down, and for a moment there was a great struggle; but by the time I had scrambled out, everything was getting quiet, and my dogs, one at a time, came out after me, and lay down at my feet."

Such is the Colonel's account of his adventure, and of

a more daring enterprise we never heard. But, as our young friends, perhaps, might not be so well pleased that we should leave him in the woods with the dead Bear, if they will accompany us we will see him to a place of safety, and conclude the narration.

Having got out of the chasm, by the aid of his flint and steel he tried to make a fire, which, however, would not burn; and, no longer in a state of excitement, he felt an immoderate thirst. He took a light, fortunately discovered the creek through which he had waded, and got safe back to his Bear. Still, he could not get his fire to burn, and became so cold that he feared he should have died. Rousing himself, however, he set about getting the Bear out of the hole, which threw him into a perspiration, and gave him three hours of hard work; for, as he raised the dead carcass to the top, it repeatedly slipped down again.

Having at length accomplished this task, he lay down, and made his dogs lie upon him, in the hope of keeping himself warm; but the plan failed. He then climbed a tree and slipped down again; he found it "warm work;" and thus, climbing and descending, he occupied himself until daylight, when he started for his tent, which he found to be five miles from the scene of his adventure with the Bear. His friend had thought him lost: but, after resting himself, the Colonel took him to the place where he had passed the night, and both were equally astonished. The Colonel—now that the cause of fear was over—seems to

have felt really alarmed. "It almost made me giddy," says he, "to look at the dangers I had escaped;" since he now saw—independent of the chance of being torn to pieces by the Bear—that he "had been all night on the brink of a dreadful chasm, where a slip of a few feet would have brought about *instant death!*"

LUTRA—THE OTTER.

THIS animal is a native of most of the countries of Europe, the West Indies, and North and South America. There are several species of the tribe; as, the Brazilian, the Cayenne, the Sea, the Slender, the Chinchimen, the Vison, the Lesser, and the Common Otter.

The Common Otter is about two feet in length, from the nose to the insertion of the tail, and the tail itself nearly a foot and a half: its head is short, but its body is long and plump; its legs, which it spreads out like fins, are short, muscular, and strong; and between its toes there are membranes which enable it to swim with speed after its prey. Its colour is a dark brown.

ILLUSTRATIVE ANECDOTES.

It is on the margin of the water where the Otter selects his dwelling, in some hollow of the bank; from whence the female teaches her young to find their own subsistence by diving after it in the stream; in which, however, they cannot wholly live, as was formerly supposed; since the Otter, it is well known, is not an amphibious animal, although he can remain for a short time under water. He is enabled to do this, in consequence of his lungs being more capacious, in proportion to his size, than are the lungs of many other quadrupeds; and by which he can inhale a sufficient quantity of air for that purpose. Should he, however, get entangled in a net under water, and not be able to extricate himself, he is sure of being drowned; although so quick a workman is he in destruction, of whatever kind he undertakes, that the nets of the fishermen generally show that he makes good use of his teeth in effecting his liberty, which he seldom fails to accomplish in a few minutes.

He is a hardy, ravenous animal, that fears not the cold, and delights in killing—even after his hunger is satisfied. Fish are his favourite food; but where they are not to be had, he will prey upon rats, frogs, or whatever small game he can catch: indeed, young grass, the bark and branches of aquatic trees, sometimes, afford him a repast; but this is

only when he happens to be so circumstanced as not to be able to obtain a subsistence more congenial to his taste.

He does not always seek his food in the same way ; sometimes he dives, and watches for the fish that may pass over him, which he is sure to seize ; for, as the eyes of the latter are so placed as to preclude them from seeing under them, the Otter suddenly rises from the bottom of the water, seizes his victim by the belly, and carries it on shore. In still water he will drive the smaller fish into creeks and shallow places, where they cannot escape his rapacity ; and where he will, for his amusement, destroy great quantities of the finny race, by biting off their heads, after he has satisfied his hunger. He seems to prefer lakes and ponds to running streams ; and in the latter he swims against the current, meeting his prey as it comes towards him. Thus, through the summer, the Otter, if unmolested, seems happily to pass his time. But his propensity to destroy is one of the means by which his haunts are discovered ; since the great number of dead fish that are seen floating near the edges of the lakes and ponds which he is accustomed to frequent, are a sure guide to the sportsman, by which he is enabled to discover the plunderer's retreat.

In winter, however, when the waters become masses of thick ice, his necessities compel him, sometimes, to seek his livelihood wholly on land ; when, hunger giving him additional courage, he will attack large animals ; and, though scarcely exceeding a large cat in size, will then de-

stroy a sheep. He can, nevertheless, continue a length of time, at this season of the year, without food; and, till he feels the cravings of hunger, he keeps much at home, if undisturbed.

When the retreat of the Otter is discovered, it is often found to have been selected, as though to guard against a surprise. We have already said, it is generally a hole by the side of the water; and which has, not unfrequently, an opening at both ends, so that if an enemy approach on one side, he flies to the other, and, plunging into the water, escapes. Should he, however, be closely pursued, he fights with desperation, and will not let go his hold when he has once bitten. When an old Otter, therefore, is in view, the sportsman shoots him at once. Those which are kept in a tame state are taken when young.

As soon as the dogs discover an Otter's retreat, they give note of it by their barking;—should the mother happen to be at home with her family, she immediately plunges into the water, followed by her young ones; and if not reached by a shot, they all generally escape. We know, however, of an instance wherein a resolute dog pursued an Otter into the water, which, finding himself hard pressed, turned sharply and seized his pursuer, striving, as it appeared, to drag her down. *Rose* was not only a large animal, but she possessed a great share of courage; and though the Otter made her feel his bite, she returned the compliment so forcibly, that in spite of all his efforts to save his life, she bore

him to the shore in her mouth, where she soon put an end to him.

It is when their mother is from home that the young Otters are taken alive; they seem to be afraid of the dogs; and do not venture to quit their hole, in which they are thus taken. When it is intended that they should be trained to fish for their masters, they are, at first, fed upon small fish, in water; milk and vegetables are, afterwards, given to them, the fish altogether dispensed with, and bread only supplied, upon which they thrive.

To train them for the purpose of fishing for their masters is a work of much trouble. After they have become accustomed to live upon bread, they are taught to fetch and carry, as are dogs; but as they are not by any means so docile, it requires much more trouble to teach them, which is frequently done in the manner following. A piece of silk, leather; or other material, is cut out in the shape of a fish, which is then sewed round and stuffed with bran or wool: this is thrown to a distance, and the Otter taught to fetch it, and to drop it also when he brings it to his master. When this part of his education has been accomplished, dead fish are thrown into the water, which he is in like manner, sent to bring out; when he does this according to the word of command, he is well fed upon bread, and sent into the water for the purpose of repaying his master for the pains taken in instructing him, which a well-trained Otter soon does, by the quantity of fish he will bring on shore, and of

which he is then permitted to have a share. Gesner tells us of his usefulness in this way, which Cuvier observes he is not surprised at.

In North America, Otters are hunted by the Indians; if at a distance from water, these animals will then dive into deep snow, where they are generally taken; but they will sometimes turn even upon the hunters themselves. Their skins are variously manufactured, by the inhabitants of northern nations.

There are many statements recorded of the Otter's tameness and strong attachment to those he has been accustomed to obey. His flesh, as may be supposed, is of a rank, fishy savour; indeed, so deeply is it impregnated with the food upon which he feeds, that we are told that the Romish church allowed it to be eaten on days when it prohibited the use of flesh. Pennant says, that he saw the good folk cooking an Otter, in the kitchen of a Carthusian convent, near Dijon, the inhabitants of which were, by their rules, debarred from eating *flesh* throughout their whole lives. The sea Otter, however is said to be delicate eating, and its skin also is of greater value than the skins of others; neither is it so courageous as the common Otter, but timid and harmless, evincing a most ardent attachment to its young.

Otters are naturally sportive, and delight in playing in the water. We have seen one seize upon a bone, or a piece of stick, with its paws—dive with it into the water

watch for its rising to the surface, when it would catch it in its mouth, then let it go, and as it floated at the top, or sunk beneath, rush after it; exhibiting in all its movements the gambols of a puppy.

CASTOR—THE BEAVER.

It was the custom of the ancients to point out the relative duties of life to youth, by practical examples evinced in the natural propensities of the lower orders of creation. Thus, the stork was instanced as a pattern of filial duty, the dog for its fidelity, the lion for his courage, the ant for its industry, &c. From the Beaver may be learned, not only industry, but the beneficial results of mutual assistance; since it is by the *united* efforts of this tribe that they are enabled to perform what must be deemed really stupendous works for the general benefits of their community.

The length of the Beaver is about from three to four feet from the nose to the insertion of the tail; and the tail itself is about a foot long, an inch in thickness, and is scaly, oval, and flat, being full six inches broad. He has membranes between the toes of the hinder feet only; while with his fore ones he carries the materials with which he

oulds his house,—conveys food to his mouth, and, in short, these fore-paws are used in all respects as hands. He supplies us with the substance called *castor*, which is used for medicinal purposes; his flesh is esteemed a great delicacy, and his skin produces a valuable fur: yet his tail, as we have already said, is scaly, seeming as though it were a part of a fish joined to the body of a quadruped; with this he directs his course when in the water, swimming in an upright position, with the hinder part of his body under it. Nor is this its only use; his tail serves him also, as we shall show, for other purposes when on land. He varies in colour, but is mostly of a brown or black; he is a native of northern climates, and is most plentiful in America—from Louisiana to Hudson's Bay.

Although we are about to show our young friends the great industry and skill of the Beaver, we must caution them not to mistake his *instinct* for *reason*. In all countries where man has improved in civilization, the lower orders of animals are either reduced to a state of servitude, or their natural efforts are checked, if not wholly subdued:—it is thus with the Beaver; since we cannot agree with Mr. Griffith in his observations, where, speaking of their peaceable dispositions, which induce the strong never to take an advantage of the weak, he says: “If they renounce the right of the strongest, and submit themselves to moral laws, and a kind of consciousness of duty, *il pro-*

ceeds alone from the influence which they exercise over each other, and from the education which the young receive from the adult at an age when they are forced to obey.— An incontestable proof of this fact is, that they lose all their social qualities from the moment that some powerful cause has isolated them from their fellows, and condemns them to live in a state of solitude.”

This is an implication from which we wholly dissent; since it is absurd to imagine that the Beaver, in his *natural state*, should in any way act *contrary to instinct*. It is not the “*education which the young receive from the adult*” which induces the Beaver to unite with his fellows to accomplish an object for their mutual benefit: he does so, as does the ant, *instinctively*. The knowledge of man is but weakness; and although to *him* it may appear as though the Beaver possessed the power of reflection, yet, when his habitation has been disturbed by the hunter, he becomes timid, and leads a solitary life, *instinctively* seeking merely to provide for his individual necessities. Thus, though it has pleased Providence to endue him with an instinct which teaches him to unite his exertions with those of his companions, in a systematic way, for their general convenience and comfort, yet, this is but the same kind of knowledge by which birds are induced to build a nest for the purpose of sheltering their young, or which prompts the ravening wolf to aid his species in surrounding the deer, which, as already shown, they thus drive to de-

struction. It teaches them, however, to assemble in large bodies, where a concerted plan is acted upon, and which is well understood by them all; all unite to carry it into execution; and it seems to be as clearly understood that they are all to share in its benefits. Such is the instinct of the ape and other creatures.

ILLUSTRATIVE ANECDOTES.

ABOUT the middle of June, the Beavers may be said to hold their general meetings, consisting of two or three hundred each. A congregation assembles by the water side; but as modern science has not yet been able to *report its discussions*, our readers must be content to learn the *results* of such a meeting; which, should it take place on the margin of a lake, where the waters keep their level, they content themselves with setting about the erection of their dwellings, merely; but should they happen, as is frequently the case, to hold their *congress* upon the bank of a running stream, which they appear to know is subject to floods and falls, then it is that these comparatively small animals show what can be performed by united perseverance and industry, when determined to effect a laudable object.

As they delight in bathing, it must appear well considered in them to provide themselves with a necessary supply

of water previously to building their houses ; and, in order to do this, they get as near as they can to the *shallowest* part of the stream, where grow such trees as they require to erect a pier, or dam, all across it. The Beavers then begin their work, in detached parties, one of which commences felling a large tree, which is soon accomplished by their teeth. Sitting at their work, they thus enjoy the fresh bark, of which they are very fond ; and thus they sit, and work, and eat, until the large tree is gnawed through, and falls within a foot or two from the earth ; and this, too, on the side they intend it should fall, which is always across the current.

Well, our wood-cutters thus fell their tree ; but while they are thus busily engaged, it must not be thought that their neighbours are idle : some are employed in felling smaller trees in a similar manner, while others are fully occupied in stripping off the top branches ; some in preparing piles, or stakes (the whole of these operations performed by their teeth, assisted by their paws), others, bringing home large quantities of clay, which they beat with their tails and feet, until it becomes very hard ; in short, there is not an idle hand—we might add, nor foot, tooth, nor tail—among them.

The large tree is next forced to the bottom, and the others of smaller size, gnawed sharp at one end, are fixed in the earth at short distances from each other : while the spaces between them are filled up with such supple branches as

are suited to the purpose. The hard-beaten clay is then applied, to increase the strength of their edifice, which is sometimes a hundred feet long, twelve feet thick at its base, and is in form, substance, and workmanship, the most ingenious structure that could have been devised. At the top of it, there are a few openings which are extended or decreased as the current rises or falls. This they strengthen every year with stones and clay, "until at length," says Griffith, "it becomes a complete hedge."

Thus, having provided themselves with a requisite supply of water, both for their necessity and pleasure, they next set about constructing their country-seats. These, however, unlike the great work we have just spoken of, are not built by the community in general, but by the respective parties that intend to occupy them. Such tenements are usually oval or circular, each having two passages, the one for their egress to the water, the other for a trip on land. It is often twelve feet in circumference,—is sometimes two or three stories high, and full two feet thick. Stakes are used at the sides to support the upper floor, when there is one; and when the house consists of one story only, though the walls are, of necessity, lower, a sort of dome, or vault, is formed over them, binding the whole fabric so firmly together as to leave nothing to apprehend from the inclemency of the weather.

But the domicile is not yet finished, although we have shown there has so much been done. It is to be lined and

ornamented; and this the Beavers do by plastering it over, both inside and out, with a degree of neatness that is truly surprising, working up their mortar, or clay, with their feet, and afterwards smoothing it down. Such is the appearance of these habitations, that to see them without knowing by what kind of animal they were built, it would be naturally supposed that the art of man could alone have formed them.

From the window, or opening which is towards the water, they constantly bathe; and when they dive, as their nostrils and ears close, they can remain some time below the surface. This window serves them for a sort of balcony, where they enjoy the fresh air; their floor is carpeted by verdure; and, so naturally clean they are, that it is never soiled, since their sense of smelling is so very delicate that they could not endure anything offensive to be near them.

But we have not yet done with the architectural merits of our aquatic friends. Nature informs them that winter will come; and that, like the ants, they must provide accordingly. To each residence, therefore, a magazine is attached, adequate to the wants of its inhabitants; and here the winter stores are kept, to which all the members of one family have access, nor do these attempt to plunder their neighbours. The space, says a modern traveller, allotted for the provision of eight or ten Beavers occupies from

twenty-five to thirty feet square, and from eight to ten deep.

These Beaver-villages, if we may so call them, sometimes contain above twenty houses; but in general they do not exceed ten or twelve. Each family has its own house and magazine, the number of its members varying from two to twenty. The whole village, however, are upon terms of friendship; and, on the approach of danger, those that fear it slap their tails, a sound which is sure of being heard and understood by every inhabitant, and each either takes to the water or otherwise hides himself within his dwelling. Thus passes the life of the Beaver, appearing to enjoy all the comforts that life affords—showing a practical lesson to man, of industry, friendship, and good-feeling. But it is man who is his greatest enemy: winter arrives, when the fur of the animal is in the highest perfection; and then it is that the habitations of the Beavers are destroyed by the hunter, who kills them for their skins, which are a valuable article of traffic.*

When the rivers are frozen over, and their houses are attacked, they seek their safety by swimming under the ice, which they will do to a great distance. A hole is then made by the hunters, to which the animals come for fresh air,—when, as their retreat has been cut off, they are sure of being taken.

* The hair of the Beaver is much prized in the manufacture of hats, &c.

Du Pratz says, that (like many other animals) the Beavers have a sentinel to warn the rest of approaching danger; and, wishing to satisfy himself of their expertness in repairing any damage that might occur to their works, he watched one night in the neighbourhood of Hudson's Bay, where these gentle creatures had formed a settlement. He took some branches of trees, as did another person who accompanied him; and thus, hid from the sight of any Beaver, they gently approached the dam, unobserved.

The object of Du Pratz was to make a gutter in the dam, so that the water might run out without alarming the builders of it; and this, after much caution, was effected without the authors of the mischief being seen. The running out of the water, however, soon alarmed the sentinel, which, approaching the gutter, gave four distinct slaps with his tail. Immediately the whole community were on the spot; the gutter was examined, and the old sentinel made a low murmuring noise, as though giving directions to the others; after which he gave two more slaps with his tail, and away they went to procure materials to stop up the breach made in their works,—which having performed, they retired to their houses. From this retreat the same writer scared them by firing off his gun, which gave him a better opportunity of closely examining the domestic arrangements of a Beaver's establishment.

It is at the close of winter that the female becomes a nurse; and, as she generally has two or three young

ones at this time, she stays at home to take care of them, when the male quits their dwelling and rambles the fields throughout the spring: he, however, pays his family a visit now and then, but does not at this season reside with them. In a few weeks the little ones are able to follow their mother, who then takes them abroad; and thus they pass their time, either sporting in the water or rambling through the woods.

MELES—THE BADGER.

THE common Badger is of a stout, clumsy make, and about two feet and a half in length, with a tail not exceeding six inches. His hair is long, coarse, and of an ash-colour approaching to black. His legs are short and strong, while his claws, especially those of his fore feet, enable him to dig well, and also to defend himself with the better success against the attacks of his enemies. He is an inhabitant of both Europe and Asia, where the climate is temperate, but is not so generally to be met with as are other animals of the order to which he belongs. He emits an oily liquid, which he sucks, and his coat always looks dirty although he keeps his habitation clean. There are also the American and Indian Badger.

ILLUSTRATIVE ANECDOTES.

THE Badger is naturally a retiring and solitary animal, that burrows deeply in the earth, taking care that the passage to his house should not be a straight one, but always winding. In this hole he passes the greater portion of his life, if unmolested, going abroad only at night, in search of food, of which frogs, eggs, insects, fish, fruits, and roots form a part; so that he is by no means particular as to its quality or flavour. In Pennsylvania he is called the *Ground Hog*.

We have noticed the crooked path by which the Badger descends to his hole, and which he makes, perhaps, in hopes of eluding his enemies, though of these man is certainly the worst. The fox, however, is no great friend to him; since, though he dare not attack him in his retreat, he often forces him to quit it, knowing the Badger to be a better excavator than himself, and that cunning may do more for him than a battle with a strong opponent that would fight and bite very hard.

When *Reynard*, therefore, would get possession of the desired premises, he goes when the Badger is at home, and commences his operations by scratching at the entrance, where he takes his station; and, if all other arts fail him, he creates offensive smells, which he seems to know cannot be endured. The Badger is thus forced to quit his den, of

which the fox takes immediate possession; but, though driven from his home, he does not quit the neighbourhood, but digs himself another cave as soon as possible. Should the dogs of the sportsman overtake him, he throws himself upon his back, and fights with desperate courage, both with teeth and claws.

He is no less determined in his defence when a dog is sent into his burrow, which, though he keeps it very clean, is often fatal to the dogs that enter it, the Badger being subject to the mange, which is thus communicated to his enemies. When the female has young ones, she soon teaches them to prey upon such rabbits, birds, serpents, &c., as she can catch, and which she carries home to them, the male not taking any trouble about his family.



THE RACCOON.

THE Raccoon is a pretty-looking animal, with a fine coat of fur, which is much used. His head is like that of the fox: his body about two feet long; and his tail, which is marked with black and gray rings, is as long as his body, which is of a grayish white underneath, and marked with black stripes upon the upper part, which is of a dark gray or reddish brown: his face is gray, with black stripes over

and circles round, the eyes and nose: his fore legs are shorter than the hind ones, and each foot is provided with five strong claws. He is naturally a clean animal; is a native of North and South America and the West Indies; and was, in the latter place, long considered a great pest among the plantations.

ILLUSTRATIVE ANECDOTES.

He feeds upon sugar-canes, fruits, eggs, birds, and sometimes fish. Brickell and others say, that he will watch for the opening of an oyster, and then tear it from its shell with his paw; that he will at times do this cleverly, but that it occasionally happens the oyster is too quick for him, closing his paw in its shells, when he is sure of being drowned. It is also averred that he thus fishes for crabs:—turning his back to the water he will let his tail drop into it, which the crab will seize, when, jerking it out, he is careful to bite it the cross way, lest the crab should apply its nippers to his nose.

He conveys his food to his mouth with his paws, using both, like the squirrel, for this purpose. He climbs a tree with ease and expedition, in the hollow of which he fixes his abode, and soon clears it of all other inhabitants, since they cannot have a more dangerous neighbour.

In a tame state, however, he is very docile and harmless, so that care be taken to keep him from the hen-roost, &c.

We had a very fine one for a considerable time; he was generally confined by a long chain, but when allowed to have his liberty he would get upon our shoulders, pick our pockets of nuts or fruit, search every corner where he thought there was anything to be got, and would get anything eatable that came in his way.

His usual place of confinement was a loft over a scullery, from which his long chain permitted him to come down to the bricked floor to take his food; and where stood a tub of water for his special use, in which he was wont to wash everything (with his paws) before he ate it. When in a playful mood, he would climb up half way to the loft, and watch for any one passing, whom he knew, and of whom he would be sure to steal something. He has often amused himself with whipping off the cook's cap as she passed by, in a hurry, with both her hands full; but his pranks were always good-natured, though he was at last sent away through the folly of an unthinking lad, rather than from any misbehaviour of his own.

Rac had long been a great favourite, was well fed, fat and beautiful; had never been known to touch live game of any kind, nor was it ever thought that he would have killed a mouse had it come in his way. One night, however, a lad bought four geese, which it was intended, on the next morning, should join the rest of the poultry in the yard. That they might rest in safety, he placed them within the dominions of *Mr. Rac*, just under the hay-loft;

when (dise to relate!) *Rac* lost his character.—and the geese their lives. No sooner were they left, than he peeped down upon their destiny; and before the brainless boy returned, he had sucked the brains of the four geese and retired to the hay-loft, like a rogue as he was, as though he knew nothing of the means by which they came by their death.

SIMIUS—THE APE.

THE Ape, or Monkey tribe, is so very numerous, that its varieties cannot be definitely ascertained. It is divided, generally, into two kinds, called Monkeys and Lemurs, and these are subdivided into innumerable species of the same family.* Monkeys have four incisive or cutting teeth in each jaw, and flat nails on the extremities; “two characters,” says Griffith, “which approximate them to the human race.” The Lemurs have more or less than four incisive teeth, and other distinguishing marks: they are chiefly to be found in Madagascar. We shall, however, speak of Apes, Baboons, and Monkeys only.

The Ape has no tail, and appears more to resemble the human figure than does any other animal: the Baboon

* In the Synopsis of Cuvier, upwards of sixty genera are specified

has a short tail—the Monkey, a long one, and some of this tribe, which are natives of America, and called Sapa-jous, have prehensile tails, or such as they can twine round an object, and assist themselves as though it were an additional hand. We will first speak of

THE ORANG-OUTANG. This animal is a native of Cochin China, Malacca, and more particularly of Borneo.* His average height may be reckoned at from three to four feet; but we have seen a living specimen considerably larger. It is the smaller kind, called the *Jocko*, which is best known to us; and hence, we believe, has arisen the error of those naturalists who have positively asserted that the height of the Orang-outang *never* exceeds four feet.

We have already observed, that the Ape bears a stronger resemblance to the human form than any other creature; but, in its internal conformation, many of the parts are so exactly alike that the most skilful anatomist cannot discover any difference between them; yet, as Buffon observes, of how little importance is it, with whatsoever nicety the body is formed, when it lacks a soul! “The Ape,” he has truly said, “has all the *masque* of the human figure; that he is an animal man cannot behold without looking in upon himself, and recognising his own nature—without being convinced that *body* is not the most

* These countries are situated in India, beyond the Ganges.

essential part; and that *with the exception of mind*, there is nothing wanting in the Ape which we possess."

The hair of the Orang-outang is coarse, of a brownish red colour; it is spread over his back, arms, and legs, and is, in some parts, four or five inches long. His face is, certainly, ornamented with whiskers and a beard; but it is not rough, like the body; and the palms of the hands and the feet, also, are equally unencumbered with hair; his forehead is low, but his ears are not large; his feet are more like hands than like feet;—he does not walk upright in his native wilds, although he runs with speed when pursued by his enemies; since, in Borneo, the people of quality hunt him, as in other countries they do the stag, and hunting the Ape is an amusement of royalty, the king himself frequently joining in the chase.

The Ape tribe all live upon fruits, roots, corn, &c.; but we are assured that, if these prove scarce, they will then descend from the mountains to the sea-coast, to supply themselves with such shell-fish as they may chance to meet with, and to which they are partial. Of these, the greatest favourite is a large species of oyster which lies on the beach, with its shells unclosed. The Ape approaches cautiously; and, appearing to be fully aware that if he were to put his fingers between the shells he might get a squeeze more pressing than pleasant, he suddenly pops in a large stone, and thus keeps the shells wide enough apart

to enable him to drag out the oyster, which he immediately devours.

In a domestic state he is, as are most of his tribe, grave, gentle, docile, and much attached to those who treat him with kindness. He does not possess the caprice and mischievous propensities of the lower species of monkeys, to the company of which he usually evinces a decided aversion.

We have no doubt that the Orang-outang has often been, and by some writers still is, confounded with the Chimpanzé of Lower Guinea. As the Jocko is the smaller of the former species, so may the Pongo be fairly named as the larger kind, although it is of a much darker hue, and 'its height,' says Cuvier, "nearly that of a man."* The same author also observes, that "the natural history of the Orang-outang has been miserably disfigured by the mixing of it with that of other Apes of the *larger* size, more especially that of the Chimpanzé."

Of the latter animal we are about to speak, reserving our anecdotes, illustrative of the dispositions and propensities of the genus we are treating of, until we shall have particularized the most remarkable of its members.

The CHIMPANZE is a native of the forests of Lower Guinea, in Africa, where he is known as the *Boggo*; and

* We are assured, upon the same authority, that "the name Pongo is corrupted from that of *Boggo* (which in Africa is given to the Chimpanzé, or to the Mandril), and is the largest of the Apes of Borneo."

is affirmed by many to exceed man in height, to whom he bears a stronger resemblance, both externally and internally, than even the Orang-outang. His face, ears, and hands are not covered with hair, as is his body, although he has a thin white beard; the hair of his body and limbs is of a dark brown or black hue; yet, M. de la Bresse, speaking of those he saw, avers that "their *skins* are fairer than that of a mulatto."

The habits of the Orang-outang are particularly striking. He walks erect; builds himself a house of branches and leaves, to protect him from the heat of the sun and heavy rains; he lives upon fruits and eggs, nor seeks for any kind of animal to feed upon. He joins with his fellows to attack the elephant with large clubs; which, owing to agility and prodigious strength, they do with amazing success; obliging him to quit the part of the wilderness which they claim, *vi et armis*, as their own.

Bosman says those that he saw were "above five feet tall." Others declare that they have seen them of a gigantic size, which is corroborated by M. de la Bresse, who says, "they grow from six to seven feet high;" they show but little mercy, it is said, to those of the human race who, if unprotected, may be so unfortunate as to fall in their way; but, we are told that when any of their own species die, the others cover over the dead carcasses with leaves and branches of trees.

That they possess great cunning and sagacity there is no

doubt, and which the comparatively few instances wherein they have been domesticated in Europe, go far to prove. They never associate with the smaller species of monkeys: and even when domesticated it is observable, that although Apes will sometimes permit these little vivacious animals to come near, and, perhaps, take some slight freedoms with them, still, such cases are exceptions to their general conduct, since they evidently consider themselves a more important race of beings.

ILLUSTRATIVE ANECDOTES.

WE have already stated that both the Orang-outang and Chimpanzé have, under the education of man, shown themselves grave, docile, and attached to those who were kind to them; but it may here be proper to remark, that in a domestic state at least, they entertain an unconquerable fear of serpents; and we are inclined to believe that this fear is innate, and no less absolute in their native forests, than when they are in captivity, notwithstanding that Labat says, "I have seen these monkeys playing their gambols upon those very branches on which the snakes were reposing, and jumping over them without receiving any injury, although the serpents of that country were naturally vindictive and always ready to bite whatever disturbed them." We should think the monkeys that thus amused themselves felt a consciousness of their own safety; since we have

seen exhibitions of both these kinds of animals in the East Indies in the open air, where Apes and serpents appeared to be reduced to a state of obedience, if we might judge from their movements (since we did not understand the language of their masters); but, although we have seen both kinds exercised thus, we never saw them exhibited together.

One day a young Chimpanzé was shown a large snake, for the purpose of ascertaining whether the fear said to be inherent in the genus to which he belongs, was really so or not, the creature never having before seen such a reptile. The instant he saw it, he shrunk up into a corner in the utmost alarm, which could not be mistaken; nor could anything induce him to go near the basket in which the snake lay, although fruit was placed upon the lid, when it was shut down, to tempt him. Much, however, as he wished to obtain the fruit, he still kept aloof until the snake was altogether removed; when the apple being placed on a chair, he after a cautious examination, to satisfy himself that his enemy was gone, took the tempting bait to eat in safety.

We believe this Chimpanzé was under two years old when it died, and it was then, as we are assured, cutting its teeth. Indeed, it had all the playfulness of an infant, wanting whatever attracted its attention, and when obtained, throwing it aside after having gravely examined it. In its cage was a swing, with which, like most of its

race, it delighted to amuse itself. It possessed great bodily strength, of which it gave many proofs in its play. It used to have its face and hands washed like a baby, during which ceremony it behaved with all becoming sericousness. It was fed upon bread, fruit, cooked meat,* &c.

This Ape was partial to those who were accustomed to show him kindness; lively and gentle, he betrayed no signs of revenge or ill nature, though, by his pouting lips and angry look, he let any one know if he were offended. He was fond of looking at a litter of puppies which was with their mother; and would take them up one by one, examine them, and then gently put them down. When he retired to rest, he would make up his bed, draw the blankets over him and bury his face in them—a practice of Apes, generally, when such luxuries are to be had.

The Chimpanzé obtained from Angola, by Dr. Tyson, appears to have possessed all the good qualities of the one last spoken of. It showed much docility and kindness of disposition to those whom it knew; would dress itself, caress its favourites, and showed no signs of dislike to any creature, except to smaller kinds of monkeys, none of which he would allow to come where he was.

Dr. Abel took an Orang-outang from India to England, which, when first taken on board the vessel, became very

* This certainly could not have been *natural* to it, although we have known of other Apes which would eat almost anything edible.

restive, although he had previously been very contented in his domestic state. But he had no notion of being confined in a bamboo cage, the rails of which he tried to break; after many vain attempts to do so, he at last found one of these rails looser than the others, and at this he tugged away until he broke it, and stole out of his prison. He, however, was soon caught, and had a chain put on him; this he would sometimes unfasten and throw over his shoulder, but he soon showed so much gentleness of disposition and gravity of demeanour that he was permitted to walk at large. He was, nevertheless, very playful; would romp with the boys of the ship, and when an orange was sometimes lowered by a string from aloft, which, when he attempted to seize, the person holding it would suddenly draw up, he would rush over the side of the vessel as though about to drown himself; or, at another time, walk away as though he did not care for the fruit, steal slyly up the rigging and seize hold of the cord to which the orange was suspended, and which he took care never to let go until he had made sure of it. This animal had a severe fright or two while on board the *Cæsar*, though not by snakes,—but once by the sight of some turtles which were brought into the ship, when he fled up the rigging in the utmost consternation; nor was he much less alarmed on witnessing some of the sailors bathing.

There were some small monkeys on board the *Cæsar*, which the Orang-outang would allow to play with him,

although he never condescended to play with them as he did with the boys. One day it happened that he saw three of these small individuals of his tribe, which were confined in a cage, receive some food of which he knew he could not partake; and, by the way of giving a hint to such other insignificant beings as might be inclined to do the like, without first paying his Apeship tribute, he—somewhat despotically, we admit—tried with all his might to throw them overboard, but was prevented. This animal was ultimately sent to a menagerie, but died cutting his teeth, two years afterwards.

Among others which, some time since, were exhibited in London, were three Monkeys that we will here distinguish as the *Lady*, her *Heir*, and its *Nurse*. The former of these, as we must suppose it had been taught to do, came forward with her young one in her arms, which, after making a curtsy, and showing it to the company, she gave to the Nurse, who, with all becoming respect, stood behind her mistress and received her little charge, which seemed to be perfectly contented, and quite indifferent as to who might nurse it. Not so, however, was the little animal's mamma; for, turning to her attendant, she chattered to her in a tone and manner which clearly indicated her displeasure at the dulness of so inanimate a nurse; and taking the little creature from her, she dandled and danced it in her arms like an experienced matron, as doubtless she was. After thus showing the nurse how to perform her duty, she placed the

little creature in her arms, still chattering to her, and obliging her to practise the lesson she had been teaching her, to the great amusement of their visitors.

We saw another of this tribe, with a young one, which did not, however, appear so careful of its necessities as the last spoken of. In the cage wherein they were confined, there was a perch, upon which the old Monkey sat with her chin resting upon her knees. She had a grizzly white beard which went almost round her face, reaching from one ear to the other, passing down the cheeks under the chin, and through which her black face appeared somewhat as though it had been ornamented with a hairy mob cap. As she thus sat in a pensive mood, she might have been supposed, from her apparent abstraction from all that was passing around her, to have been totally indifferent to it; but such was far from the fact. Her little one was in the front of the cage, looking out for whatever might chance to come from the bounty of strangers, which it eagerly drew in through the bars.

Many were the little presents we saw it receive; and, in truth, we made several contributions ourselves, though we must confess that while doing so we knew that the little creature would not be a gainer by them; since its contemplative mamma no sooner perceived that it had got anything eatable, than, without altering her position on the perch, she reached her long arm over the shoulder of her baby, whipped the gift out of its hand, and popped it into her own

mouth. The poor little Monkey got quite out of humour at its repeated disappointments, but still kept its face towards the front of its cage, little thinking it was its unkind mother that robbed it of its treasures, while silently seated on the perch behind.

Mr. Cross (keeper of a menagerie in London) had a Baboon called *Jerry*—or, if we remember correctly, *Happy Jerry*—which would turn the organ when the beasts were to be fed; take his meals and wine *à la Chevalier*; nor was he in the least averse to grog and a pipe of tobacco. In short, “nothing that was good,” as it is said, ever came amiss to *Happy Jerry*. Such, indeed, were his numerous accomplishments, that we are assured he was sent for by George IV. to pick a bone at Windsor Castle, where his Majesty expressed himself much amused with the manners and mimicry of this most magnanimous of Maudrils; though we must admit, that of the whole Monkey tribe, the Mandril is the most disgusting creature to look at. He is very docile, yet is, nevertheless, most mischievous in his natural state. He is a native of the Gold Coast, and of the largest species of Baboons.

We once saw a large Baboon, that was so very fond of children as to express, by its whining and gestures, its great anxiety to have them with him; and we were assured by his keeper, that if a child were to be intrusted to him, the only fear of his hurting it would be from the vehemence of his caresses. That Monkeys have been known, when in a

domestic state, to show something like a partiality to infants, is certain; but whether or not this apparent kindness was the mere effect of their proneness to imitation, we cannot say. We quote the following anecdote, as bearing upon this subject:—

A ship, belonging to the port of Whitehaven, had made her voyage to Jamaica and was on her return home. It was on a fine afternoon, when the captain saw a strange sail at a distance, and took up his telescope for the purpose of ascertaining to what vessel it belonged. One of his passengers was a lady, who had a young child at her breast, and who was standing near him while he was looking through his glass, which he offered her, if she chose to look at the distant sail also. She wrapped her infant in a shawl, and placing it carefully on the sofa whereon she had been sitting, looked through the glass.

While she was thus engaged, the man at the helm suddenly gave an alarm; when, on turning round, the first thing that caught the eye of the poor lady was an Ape, which had been permitted to run loose about the ship, now running up the rigging with her beloved infant, which it held fast in one arm, while it used the other to assist itself in climbing aloft, which it appeared to do with much ease, notwithstanding the incumbrance of the baby.

The unhappy mother gave a terrific shriek, and instantly fainted. Some of the sailors hastened to pursue the creature, who, watching their movements, climbed still high-

er; upon which the captain ordered them to come down, fearing lest the Ape, if closely pursued, might attempt to effect his escape by leaping from one part of the rigging to another, and let the child drop. The poor child now began to cry; and every one who heard it felt the most anxious interest for its fate; but they were soon satisfied that its uncouth nurse had not hurt it, as they saw him caress it, dance it in his arms, and try (as he had seen its mother do) to hush it to sleep. The lady had been conveyed to the cabin; and while efforts were resorted to, in the hope of restoring her to her senses, the captain ordered the men to conceal themselves below, and placed himself behind the companion,* where he could observe what passed without being seen.

As he hoped it might be, so it proved:—the animal still holding the babe with much care, cast his eyes everywhere about the ship; and, at length, appearing satisfied that he was unobserved, the captain saw him carefully descend; and, approaching the sofa, he laid the infant down, unharmed as when he had first carried it away. The captain, you may be sure, soon caught it up in his arms; and, at length, the poor lady recovered from her fit, when at the sight of her dear child safe and unhurt, she almost became frantic with joy.

The anecdote of Father Carbasson's Orang-outang, although it has been often told, has yet something in it so

* The companion ladder of a vessel, is the stairs leading to the cabin.

very illustrative of the inveteracy of these animals to imitate whatever they see acted before them, that we may, perhaps, stand excused to our young friends for repeating it.

The priest had brought up his favourite, of which he made so great a pet, that it would follow him about wherever he went; and, as it often happened that he had visits to make where the company of his Ape would not have enhanced their pleasure, he was necessitated, upon such occasions, to confine the creature until he returned home.

It will be readily imagined, that in the performance of his clerical duties, the attendance of his sylvan friend was always dispensed with; though always much against the will of the animal itself, which, like a dog accustomed to follow its master, had a great antipathy to being locked up. On an unlucky occasion, he contrived to escape, and tracked poor Father Carbasson to the church; he mounted upon the sounding-board over the pulpit, where he lay quite still and unobserved until the preacher commenced his sermon; but no sooner did he hear the well known voice of his master vehemently declaiming, than he crept to the very edge: and peeping over, he so closely imitated every movement of the preacher, and in so ludicrous a manner, that the whole congregation gave way to a general fit of pleasantry.

Astonished and perplexed at such ill-timed mirth, the unconscious priest reproved it with pointed severity; but instead of his rebuke calling his auditors to that tone of

serious reflection which he desired, the more ardour he displayed by his vociferations and gestures, so much the more closely was he imitated by his Orang-outang;—the whole congregation appeared incorrigible, since, no longer able to affect restraint, they gave a loose to their inclinations, and burst forth in one general roar of laughter, to the utter mortification and dismay of the preacher himself. A friend, however, at last stepped up to him, and (as well as laughter would allow him to do) named the cause of the unusual merriment; and at the same time pointed to the still mimicking Ape, the antics of which were at that instant so grotesque, that his master could scarcely refrain from a smile, as he ordered the servants of the place to remove him.

Baboons are plentiful in most of the forests of Africa; and, from the concurrent testimony of innumerable writers, they act with concert and system in their depredations. The common Baboon, for instance—which varies in size from three to upwards of four feet high—goes not out to plunder alone, but joins a troop of his fellows; thus they can the better effect their purpose, and defend themselves if attacked.

They appear clearly to understand the maxim, that “union is strength;” or, at all events, practically to act upon it. It seems to be clearly understood among them *which* is the orchard or other plantation they intend to rob, since their method of accomplishing it shows that their plan

must have been previously arranged. A certain number of them enter the scene of their intended depredation, while others wait on the outside of the enclosure, standing in line the whole distance from the fence to the mountain, or whatever other place they have fixed upon to assemble. A sentinel keeps "a good look-out," to avoid a surprise; and, thus arranged, the party within gather the fruit as fast as they can, which they cast to their companions on the outside of the fence, or should it be very high, to those which then seat themselves at the top of it. Thus their plunder is thrown and caught from one to another, with the expertness of so many jugglers, until it is safely lodged at their general *depôt*. Should there be the least sign of danger, their wary sentinel gives the alarm, and away they all scamper, though not empty-handed, each one carrying off as much as he can with safety to himself. It is not, perhaps, the least surprising part of their plan, that during the whole time they are engaged in their work of this kind, a perfect silence is observed by the whole troop.

The dogs that are set to guard the premises of the inhabitants, are by no means, at all times, a match for these depredators, which so actively use both their teeth and claws, that even when they are chased by them, they sometimes prove too formidable for their assailants. Mr. Burchell says, that several of his dogs were severely wounded by the teeth of these animals; and that two or three dogs were thus bitten asunder.

Baboons are sometimes taken when young, and brought up tame; and we are told by Kolben, that they will then become as watchful of the property of their masters as dogs themselves.

We have already shown, that the larger species of the Monkey tribe have an antipathy to mingling with the smaller ones. A strong proof of this occurred at an exhibition of a variety of them that occupied a large cage in the Zoological Gardens in London, wherein was one of the large kind with a great many small ones. It was quite amusing to see the little creatures begging for nuts or cherries,—yet, at every movement they made, watching every turn of their more powerful companion, from whose approach they fled, even when the desired prize seemed within their reach. One of these little creatures had drawn a lady's glove into the cage, with which he fled to the very top; and, casting an eye on the movements of his dreaded neighbour, the glove was ransacked, turned inside out, put on his head, and then on his hand; but as there was nothing to be got by it, the disappointed thief again took his chance of what he might get by begging—still keeping a watchful eye, like all the rest, upon their dreaded and self-important companion.

Of the Monkeys, or Sapajous, which are natives of South America, we must particularize two or three species,—since their habits and peculiarities, in some respects, vary from

those we have already enumerated. The Preacher, or Warine, is one of the largest size which is produced in America; he has a long prehensile tail (and is, therefore, of the Sapajou family), and has a loud disagreeable voice, which, as we shall show presently, he exerts to its utmost extent. His face is broad; his brilliant sparkling eyes are black, as is also the long glossy hair that covers his body; but, being longest under his chin, it appears to be ornamented with a venerable beard.

The female carries her young ones on her back, somewhat after the manner of a travelling gipsy,—only, instead of clinging round her neck with its arms, the little animal puts both arms and legs round the smallest part of the body of its mother, which, notwithstanding the incumbrance, leaps from bough to bough and from tree to tree. They are all mischievous and untameable; and upon whatever they fasten with their teeth, they leave a certain remembrance that they knew how to use them, since their bite is dreadfully severe. They are very numerous in Brazil, and are eaten by the natives; their flavour, it is said, resembles that of a hare; their fat is considered a great delicacy.

In springing from one tree to another, they are sure to closely adhere to whatever part of it they touch, whether it be by the hands, feet, or tail. This tenacity renders it the more difficult to take them; since, when they are wounded,

they will cling to the branch upon which they were; and even when shot, if on a tree, they will stick to it until they actually drop off by putrefaction, as Marcgrave and other naturalists assure us.

When one of them is wounded, his companions immediately hasten to lend him all the assistance they can. They appear to be all surgeons, in their way, and have no disputes about *degrees* while their bleeding comrade requires their aid. They first probe his wound with their fingers, as though anxious to be informed of its extent; but, if it bleed freely, they close it up,—and while some of them are thus busily occupied, others are no less active in procuring leaves, which they chew, and with which they afterwards plug the wound. The Alonatto is the same species as the Preacher, differing from it merely in the colour of its hair, which is brown, and in not having a beard.

But the most remarkable peculiarity of the Preacher is the practice from which he derives his name. We are assured, by writers of credit, that every morning and evening these animals congregate in their forests, where one among them ascends higher than the rest, motioning with his hand for them to be seated around him. This is all very polite, it must be owned; but it does not end here;—we are assured, that when the chief (as we will, by way of distinction, call him) sees his company are all seated,

he commences "an oration, with so quick and loud a voice that at a distance it might be imagined they were all making a noise together. During the whole discourse, the rest keep a profound silence; and when it is ended he makes a signal for them to answer him, and immediately they all set up a cry together,—till, by another sign of his hand, he orders them again to be silent, when they are immediately obedient and quiet. The first then renews his discourse, or song, which, when finished, and the others have paid their attention to it, the whole assembly breaks up and separates."

This statement appears surprising, although attested as it is by writers of credibility. This species of Monkeys seem to act systematically in their meetings, it is true; but there does not appear to be any further object in their doing so, than merely to meet in groups and howl. No ultimate *result* of such unions has yet been discovered, as we have already shown to be the case by the systematic plan of the common Baboon. It may probably be the fact that one of the oldest of these Monkeys takes the lead, and instinctively directs, as is the case with other animals, according to their natures; thus the rein-deers, elephants, &c., are led by an old male of their respective companies. We think the following fact an arrangement of much more importance to the animals that practise it, than is the noisy though ludicrous oratory of the Preacher.

There are Monkeys called Coaitas, of various colours on the Isthmus of Darien,* some white, others black, some with beards, and others without them; however, they associate together, and are upon the best terms possible. In proof of this we give the following well attested account of their good-fellowship and reciprocity. They are also of the Sapajou tribe; and when, as it sometimes occurs, the tree to which they wish to remove is at too great a distance for them to leap from the one wherein they may chance to be or, perhaps, when such trees may be separated even by a river—yet, even then they contrive to accomplish their purpose without condescending to descend upon the ground. One of them holding fast by the branches of the tree which they are about to quit; gives his flexible and strong tail to a second, which holds it fast; another does the like by him, and thus they hang from the tree, locked hand-in-hand, or tail-and-tail together; and in this way, like a lengthened chain (of Monkeys) they swing backwards and forwards until the one at the bottom is canted to the branches of the tree which they desire to reach: he then holds fast, and his companion at the top of the tree they are about to leave—which may be said to be the other end of the chain which thus reaches from tree to tree—now drops down and hangs, in turn, at the bottom; he then climbs upon his

* The neck of land which joins North and South America.

neighbours until he reaches a branch of the tree he wishes to get into, as is done by the rest; and thus they all arrive safely without touching the ground.

The whole Monkey tribe are considered to be the despots of the forest; since from their agility, the lion or tiger cannot contend against a race which carry on an offensive warfare from the tops of trees. The serpent alone is their successful opponent; and, as some naturalists express it, these two animals command the forest between them, the latter often creeping up the trees and carrying with him destruction to the Monkeys ere they are aware of their danger.

Although they have not the power of doing so much mischief as the Apes, still Monkeys are naturally obstinate; nor, in a tame state, are they so much influenced by kindness as by fear. Thus we see the poor tortured animals forced to play many tricks in our streets, which ill-usage alone induces them to perform. Their keepers generally hold a cane or whip in their hands, and the poor creatures are constantly on the watch for their commands. It is an encouragement of cruelty to bestow anything upon men who thus may be said to live by the pain they inflict.

We now, for the present, close our labours, having essayed to excite a relish in our readers for perusing the *Natural History of Animals*; and, in doing so, we trust it may be ever deeply impressed upon their minds, that every-

thing which God has created, he has formed for the fulfilment of his own wisdom; and that they should never *torture* an animal merely because its nature may be headstrong and fierce, which it cannot help.

Man is above all other animals, being gifted with the power of reason; and it is when, by his own vileness, he allows his evil passions to degrade his nature, that he sinks below the level of the brute.





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