### NEXT TO THE GROUND

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#### Next to the Ground

"'A babbled of green fields"

# Next to the Ground

Chronicles of a Countryside

Martha(McCulloch) Williams



New York
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#### Foreword



 $\Gamma$  means so much to grow up next to the ground. There are no playmates like grass and orchard trees, colts in the pasture, chickens in the yard, nor any story-tellers to match the winds when they play

with the leaves, or dance a sword-dance through fields of yellowing wheat. The fields too are rare gossips, if only you take the trouble to understand. The pity of it is that one can never write down the charm of their living voices! They have something almost epic in their gossiping, yet always something new to tell.

What follows does not claim to tell all the field story. Who can put adequately into words, the dew, the dawn, the quickening of springtime, summer's golden heat, the subtile odors of ripening grain? But it is a record at first hand of much that comes to pass between the time of summer fallows and the gathering of next year's corn.

Idiosyncrasy is one charm of every countryside -as one star differeth from another in glory, so does one field or wood or hedgerow differ from another. This chronicling is not meant to be universal. It applies to a Southern countryside lying westward of the Alleghanies and eastward of the Mississippi, nearly midway between the mountains and the river.

The chronicling has been a labor of love for were not the fields, the woods, the creeks, friendly comrades of the chronicler? Partly because of delight in them, partly also because they make up what seems to be, in outdoor literature, an Unknown Country, she has written of them at some length, but always veritably, with no greater ambition than to give the feel of outdoors, and the life of outdoors, as known to herself.

## Ploughing

#### Chapter I



AWN broadened into daylight as the teams came out to the clover land at White Oaks. Neighboring fallowers had been at work since they could see a hand before them, but

Major Baker, the master of White Oaks, was merciful to his beasts, especially his ploughbeasts. He knew they got their best sleep in the hour or two before dawn, as he knew also that for fallowing they needed all the strength sleep and rest could give. He liked to think of them stretched at ease, sometimes even snoring as a tired man snores. Waking them to be fed about the second chickencrow, was, to his way of looking at things, haste without speed.

The clover lay upland, in broad undulant reaches, without a stump or a serious gall to break its expanse. Here or there sparse briers had sprung up in the two years since it was seeded. Occasionally too there were sassafras clumps, and at the sink-hole, some remnant wild growths — hazels, a hydrangea bush, and a rampant young sycamore rooted in a cleft three feet below the surface. The sink-hole had apparently no reason whatever for being where it was, in the middle of a broad plateau, between two rich swales, but the grass country of Middle Tennessee, in which White Oaks lay, is a limestone region, full of underground streams that play curious pranks with the over-lying earth.

Venus, the morning star, had showed as a point of white flame in a rosy east when the ploughmen started out. She was pale, the wan ghost of a star, as they filed through the draw-bars. There were three of them, black Dan, the plantation foreman; slow Pete, Dan's elder brother; and Joe Baker, the Major's eldest son. Each rode a mule, sitting sidewise, and balancing carefully on the backbone, and led two others. Dan had three blacks, matched to a hair, in height, color, weight, and motion. Joe had three creamy-duns, likewise matched. It is cruel, and a waste of strength in fallowing, to hitch a light beast beside a heavy one, or harness together a quick-stepper and a snail. Slow Pete had cross-matches - a gray, a sorrel, and

a bay. Notwithstanding, they went very well together. They were slow like himself—slow that is, by comparison with the blacks and the creamy-duns. But they had weight, strength, and steadiness, if they were not so good to look at. The strength was about to be severely strained—they had a tougher job ahead than even clover fallowing. It was the breaking of old grass land, never very mellow, and now sour and lifeless through years of trampling.

There were no better teams in the county, nor any in better condition. Each and several, the beasts were sightly, neither fat nor lean, active, light on their feet, with good mouths, and sound in wind and limb. Major Baker kept none but mare-mules, knowing them to be sounder, kinder, and hardier. For the most part, he bred them himself, to make sure they had an infusion of blood. Blood tells in a mule, quite as much as in a horse, or a man. Dan's blacks were out of handsome half-bred mares, and stood near sixteen hands at the withers, yet except in pulling through the depths of winter mud, they could not hold out with the creamy-duns, whose dams were thoroughbred.

When it came to shearing mules Dan was an artist. He had spent two hours or more at it the day before. Manes were trimmed to half-inch upstanding fringes, tails banged to the pertest tasseled tip, even the ears had been shorn of their long inner hairs. Dan had a firm faith in witches. Now a witch, it is well known, cannot ride down a horse or mule unless there are hairs long enough to twist into a stirrup. Dan had not left a single long one — hence he was satisfied the teams would thrive and stand up to their work, not to name being ever so much more biddable, since witches, working unhindered, put the devil into even the best broken of them.

The clover-shift was at the very back of the place, running out to the flat-woods and the crawfishy strip, which had been so long abandoned it was overgrown like a jungle with every sort of brier, persimmon trees, crabapples, blackthorn and scrub-oak. Birds sang riotously in the strip, after their fashion upon late midsummer mornings. Their clear reedy jangle filled all the silence of the fields. Woodpeckers flying in to plunder the early apple trees, made wavering lines of black and white against the pink sky. Under the strengthening light, corn began to rustle and cast down heavy drops, which beat like fairy drums upon the lower blades.

Joe could have shut his eyes tight, yet named the fields as they passed them. Each had its own scent, subtly unlike all the rest. Tobacco gave out mainly the fragrance of newly-turned earth — the single ploughs were just laying it by. The corn-fields smelled of ripe tassels, a smell that is a sort of sublimation of new-mown hay. Still it was not quite so delicate as the scent of the wheat-stubble, where the young clover was just well in bloom. In a week the young clover would hide the stubble entirely. Already there was but the faintest suffusion of yellow underneath its grayish green.

The new clover did not look or smell like that which grew in the fallow land. Its leaves were not only grayer, but more alive-looking than even those of the aftermath, in the end that had been fenced off for mowing. The aftermath stood mid-leg high, and was not gray at all, except when dew-beads shimmered around the edges of every leaf, or a low wind lifted them delicately to show their silvery undersides. The fence had been taken away, so the whole spread might be broken in one land, except across the other end where the clover winter-killed so badly it had been ploughed up, and sowed with peas in the spring.

There would be a turn-row between the peas and the clover, that is to say, a strip of ground left unbroken, and unseeded. The draw-bars were at one end of it. At the

other there was a gate leading into the old grass. Slow Pete kept on to the gate, droning a dismal hymn as he went. Dan and Joe struck across the clover almost as soon as they were inside the bars. Dan was to plough in the pea-ground — still he thought it the part of wisdom to see that Joe got started right. But Joe motioned him back: "I know what I'm doin'," he said. "Besides, I shan't feel like I earn that new gun Marse Major's goin' to buy me, if my work makes you lose time."

"Aye, yi! little boss! But don't you go holler fer me, 'ceptin' you drives right slap in er yaller jacket's nes'," Dan said, grinning broadly as he turned back. He was munching a hunk of cold corn-bread. None of them had waited for breakfast. The cool of the morning was too precious. Each had a runlet full of water slung at his back. Dan and Ioe had filled their hat-crowns with fresh dewy leaves, but Slow Pete had stuck to his everyday red head-rag. All of them wore boots. Ploughing is nothing like so tiresome to either man or beast barefoot, as when they go shod. Fresh sun-warm earth seems to give back electric strength to the foot that treads it naked. But fallowers seldom dare go barefoot. Snakes abound in the clover. So do stinging things - humble bees, yellow-jackets

and their kind — still they are not to be named beside the mysterious danger of "dew-poison," which takes off the skin with a touch, and leaves a deep, angry sore.

Happily it is rare, but the fear of it had made the ploughmen go shod, and grease their mules well above the ankles, with neat's foot oil. The mules were all unshod, and harnessed to a nicety, with collars beaten smooth inside, back-bands exactly true, chin-straps easy, and hames firmly tied. On top of all came the leather nets — which were not properly nets at all, but fringes of long leather strings, swung from a stouter string, and falling down either side from the ears, to the roots of the tail. Swinging back and forth they kept off the blood-suckers, flies, gnats, and midges, that otherwise would have run the poor beasts wild.

Dan had really started both ploughs the day before, first looking them over, and testing every nut, bolt, and bar, to make sure they were fully land-worthy. They were left-hand ploughs, with steel shares, and weed-coulters, and light iron guide-wheels supporting their heavy beams. He had run half a dozen furrows with each, then cleaned it carefully, and turned it upside down, so the dew might not fall upon the scoured share. Dew would not rust the shares in a single

night, but it would roughen them — delicately, it is true, but enough to make the first morn-

ing rounds harder than they need be.

A left-hand plough in fallowing, makes its own land. Land, it may be explained, is the technical name for the space of ground laid off to be ploughed to a finish. Sometimes a whole field is taken in a land. That depends a good deal upon the field's size and shape. A land needs to be much longer than it is wide. Square fields are cut in three to five lands, the number depending somewhat upon the lay of them. Good land-masters have their fields fallowed or winter-broken across the last breaking — thus if the breaking plough skips a spot going one way, it will be likely to hit it next time.

Lands are ploughed in or out, according as the breaking is done with a right-hand plough or a left. This applies to the practice of middle Tennessee only. Taking the world by little and by large, there are possibly as many sorts of ploughing as of religious beliefs. Ploughs are right-hand or left-hand through the placing of the share. If it is set upon the stock to throw the furrow-slice to the ploughman's right, then the plough is a right-hander. If it is so set as to turn the furrow to the ploughman's left, then it is a left-hander. The spread of broken ground is always on the side toward

which the furrows fall. A left-hand plough thus puts the broken ground to the left. With a triple team drawing it, the leader-the left-hand horse - walks in the clean furrow, the other two animals upon firm unbroken ground. Another advantage of the left-hand plough is that it leaves no dead furrows for winter rains to turn into gulleys or miry spots, and a still greater one that in the ploughing there are no corners to be turned. At a corner the ploughman needs must lift out his plough and set the share afresh in earth - a heartbreaking and back-breaking job with a big Number 40, - the best size for heavy fallowing. At starting the lefthand plough runs back and forth in the middle of the land, throwing furrow to furrow, and stopping half the land's breadth from the ends. The plough is lifted out and reset at the beginning of each furrow, until there are half a dozen or so. Then the ploughman drives all around the broken strip, taking his plough out only when it needs must be unclogged. The land, first a long narrow oval, grows and spreads until it touches either the field-edges or the border of another land. There will be small triangles unbroken at the corners. These are finished with lighter ploughs, generally righthand ones. After a land is well begun two ploughs or even three may run in it, each keeping out of the other's way. This is common practice where the land is very big, and the

breaking ploughs of the same pattern.

Very many more right- than left-hand ploughs do the world's work—the ratio is possibly seven to one. Right-hand breaking commonly begins at the land's edges -thus the first furrow is the longest. The broken ground lies to the ploughman's right. Lands are of almost any shape, but preferably a long square. The plough is driven clear out at each corner, and reset in the unbroken ground. Thus the team is forced to trample the freshly broken ground. When the land is finished, you can see a big trampled cross diagonally upon the breast of it, marking out the corners. In the middle there will be a dead furrow - that is to say a naked one, where the plough cut away the last bit of upper soil, and flung it apart from the furrow on the other side. But neither dead furrows nor trampling matter greatly with land that is to be cross-broken before planting in the spring. Good tilth also requires back-furrowing at the margins of the fields—that is to say throwing in several furrows at the outer edges before full breaking begins. This prevents a ridge at the edge.

It is entirely possible to plough in with a right-hand plough, quite the same as with a left-hand one — but tremendously inconvenient.

At least with teams broken to a haw-lead, harnessed without breeching, and governed by a single line, which runs to the leader's bit and is held in the ploughman's left hand. Middle Tennessee plough-teams are so harnessed and Draught beasts working double, be it understood, are distinguished as "nigh" and "off" horses. The nigh horse works on the left, the off horse on the right, and either to plough or wagon the nigh horse always leads. When draught-beasts hear their driver shout: "Gee up there! Gee! Gee!" they know it means pull to the right; when the shout is: "Haw-aw! Whoa-haw!" they know they must pull to the left. In a three-horse team there is properly but one guiding mind — that of the leader. The off horse and the middle one follow his initiative - their bridle-reins, indeed, are linked to a ring in his hames. they do not step with him, they are tied back - and if they try to run around him, a favorite trick with youngsters half-broken, the bearing-stick comes into play. This is a light stick swung a little below the recalcitrant's bit, and running on to the leader's hames.

A team can be hawed around, that is turned to the left, by little more than a steady pull on the line. To gee it around takes five times as long, and ever so much more trouble. First the ploughman must by jerks and cries make the leader understand what is wanted, then the leader has to crowd against his mates and almost force them into position. Ploughing in with a right-hand plough, team motion is reversed and the lead is against the furrow—hence the share is apt to be drawn out, especially on the rounds. Sometimes it leaves unbroken strips a full yard wide—especially if the ploughman is careless or not fairly strong enough for the work in hand. Ploughmen, like poets, are born, and need a deal of making afterwards. Given this special aptitude, supplemented with practice, there will be good work with almost any sort of plough and team.

Dan was a born ploughman, a master of the craft. It was among Joe's dearest ambitions to prove himself also of the guild. Until to-day he had always resented the sink-hole, as a wholly needless blot on the fair field-face. Now he was glad it was there—the bushes gave just the shade he needed to keep his runlet cool and fresh. He slipped down, unslung it, and nestled it expertly amid the vagrant greenery, reminding himself as he did it to be sure and look for snakes when he came to drink. Snakes, for all they are so cold-blooded, love coolness in hot weather—he had known of more than one choosing to coil itself about a sheltered sweating water vessel. Then he

stood up, drew a long breath and looked about him. The mists that had hung so low over the swales and in the creek valley had risen as high as the tree-tops. The sky was clear, except for the faintest silver mottle far down at the Overhead the blue brightened southwest. momently, but still the east was a soft translucent pink. Joe hoped it would not deepen to angry red — he did not want hindering rain upon this first fallow day. He was weatherwise after the manner of country lads, but the omens were contradictory. Clouds and heatlightning in the south meant fine weather, as a red sunrise foreboded rain. On top of that, the locusts, which he called "dry-flies," were shrilling merrily, yet there was the rain-crow, the clown of the woods, "calling rain," with all his might.

Bob Whites, feeding in the stubble upon clover buds and scattered wheat, called in soft half-plaintive singsong to their fledgling broods. Grasshoppers hung, often head downward, upon tall weeds, and stout grass-culms, but were as yet too damp and chilly for hopping—indeed, almost too sluggish even for crawling. There were butterflies everywhere, their wings too heavy for flight. Clouds of tiny white ones clung to the damp places, their motionless wings held flat together, straight above their tiny bodies.

Bigger brown ones crawled painfully about the netted clover, too inert to think of homes for their eggs. As yet they were not very plenty. By mid-August there would be millions. Their cousins in golden-yellow, and the gorgeous tawny-orange gentry, spotted all over with black velvet, began to flutter languidly out of the hedgerows and the corn-Now and again a tobacco-fly, belated in his night-ranging, hovered irresolutely above the fresh white trumpets of a vagrant honeysuckle, or the honey-heart of a late wild rose. Humble bees drowsed upon the plumes of early goldenrod. They had slept there all night - perhaps to be ready for work in the morning.

Possibly it is some dim comprehension of his work's worth which makes the humble bee not humble at all, but the most self-important among winged creatures. Clover is worth, you see, uncounted and unreckonable millions, not merely to the landward folk, but to the world which the landward folk feeds. Without the humble bee and his congeners, clover would never ripen seed. Since the plant is a biennial, no seed would mean its extinction, possibly in ten years: in twenty at the outside.

The clover-heads, understand, are made up of little trumpet-shaped florets, so curiously

lipped and throated that self-fertilization is impossible. Humble bees and their cousins gather honey by means of a long retractile proboscis. In plundering the clover-heads they gather more than honey. Pollen sticks in little lumps to forehead and eyes. It is cleared off, with strokes of the fore-legs, and in the clearing spread along the proboscis, which deposits it where it will do most good, — in the heart of the next clover-floret rifled.

Hence clover seed. It is small - very small to mean so much, no bigger than a tiny grain of sand. Its vitality is wonderful -it will lie twenty years deep down in the ground, and germinate when brought to the quickening of sun and air and springtime. One might show statistically its value in hay and pastures, and their derivatives, beef and butter. But that would not by any means close the account. What clover is worth to the land itself, is a matter beyond all reckoning. Like all the pea family, scientifically the Leguminosæ, clover has for ages been accepted as a plant of paradox. Other crops grew, and took away with them the strength of the soil. The more lavishly clover grew, the richer, it left the place where it had grown - not merely lighter and looser, but in better heart. The wise men explained that clover was a

sort of air-plant, drawing thence a store of nitrogen, the most valuable of all plant foods. It was a fine explanation - except for the fact that it did not in the least explain how the trick was done. Still, in one point the wise men blundered upon fact — the fact that clover fed the land through its roots rather than its stalks or leaves or branches. But the wise men took no sort of account of some queer little knobs and bunches, found upon clover roots, also upon those of its cousins, the peas. Latterly it has been discovered that the knobs and bunches do the work. They are made up of beneficent bacteria, which attack and dissolve the elements in the soil, thus rendering them fit for plant food.

Clover is even more an aristocrat than a paradox. It will not grow save on land in fairish condition. Thin soil, or sour, or badly galled spots, it leaves to the peas, to rye, to the miscalled Japan clover, which is not a clover at all. Neither does it love a sandy soil, though it will grow on it something laggardly. Peas luxuriate in sand, and do not disdain the thinnest crawfishy stretches. Indeed they will flourish pretty well anywhere. To say land "won't sprout black-eyed peas without moving," is to express in the vernacular of Tennessee, the height and depth

and extreme of sterility. At White Oaks they had made such riotous growth, Major Baker knew there was no such thing as turning the untouched vines under. So he had put hogs upon them to eat them down, leaf and pod and branch. Only the long, tough vines remained, and the wads of fibrous stuff the hogs had thrown out after chewing it and sucking the sweet juice. Still, even the vines made a nasty tangle. Joe was glad he did not have to deal with it. He smiled as across the sunlit distance he heard Dan shouting: "Whoa-haw-w dar you, Tige! Git up, Nancy! Tote yosef, Beck! Tote yosefs! All you black gals, tote!"

His own team was ready. Against Dan's advice, he had Wicked Sal in the lead. She was not wicked to him — never wicked at all, as he saw it, only tricksy and full of mischief as a kitten. Her kicking even was prankish. Altogether she was ever so much a better mule than Blarney, who stood next, not to name being quicker than Beauty, who worked on the off-side. He loved all three — had he not played with them ever since they were foaled, and helped to break them? He had taught them to start and stop at his whistle, a soft piping something like a partridge's feeding call. In the pasture they ran to him even if they were hungry, following him like dogs if

he held out his hand. They had seemed that morning to know what was before them, standing like lambs to be hitched, without snatching at the green stuff so temptingly under their feet. No wonder he patted them, called them pretty girls, and stuck little leafy bushes in their head-stalls to frighten the flies from their ears.

He whistled. Wicked Sal laid one ear back, one forward, shook herself the least bit, and flung her weight against the collar. Blarney and Beauty stepped with her as though the three were one. There was no lurching, nor lagging, nor darting. The share surged forward, with foam-light earth creaming away from it almost as water creams from the prow of a boat. It was set to cut a furrow-slice nine inches broad, and five inches thick. Thus if the slices kept shape, they would fall slantwise, one on the other, and cover the field's face with six inches of light earth.

Ploughing began just where the pasture adjoined the mown land. Down the tramped side the slices did keep shape. Over in the aftermath, the earth was so mellow they melted as they fell, leaving bare a netted intricacy of big yellow clover-roots. Joe knew the tramped land would be mellow enough by seedtime. It was only firm, not packed and caked as the path was. The path ran through the mowed

stretch — it was a hungry man's path, straight, very narrow, and deeply trodden. Slow Pete had made it, walking at night and morning to and from his cabin in the edge of the flatwoods.

The ploughshare tore up the path in a clod half a yard long. Joe looked at it, and wondered why it should take two ploughings and as many seedings to get the path-mark entirely out of the field. He wondered also why so many coarse, broad-leafed things, plantain, burdock and their kidney, should keep springing up in the ploughed land to mark the path's course. He speculated a little too as to whether the path proper would fetch wheat, or if the clean sound seed sown on it, would turn out cheat. He knew tramping wheat through the winter would turn it to cheat. At least his father said and thought so - and Joe never let himself doubt anything his father said.

Sunshine had flooded the field as he stuck the share in earth. By time he had gone around the land his forehead was beaded all over. He wiped off the sweat, swung his hat high above his head, and yelled, loudly, happily. Dan answered with a whoop. Slow Pete, down in the grass-land, sent back a quavering halloo. There was a drenching dew. Joe was wet to the knees. He looked doubt-

fully at his boots, then at the sweet-smelling earth: "Dew-poison or not, I'll risk it!" he said, kicking off the boots and tramping on.

The fresh earth more and more fascinated him. It was a warm chocolate loam, except in the swales where it was richest. There it was black-brown with gold-lights of sand. There the clover roots were half as big as his wrists. The brown butterflies were plentiest there, and the grasshoppers rose before the share in clittering clouds. The strengthening sun drew up the dew in steamy vapors. Birds sang only in fitful snatches, but the crows were noisier than ever. They flew in from the flat-woods to hover impudently behind the ploughs. Joe picked up a handful of rounded pebbles. Rocks, he called them. They were just the things for throwing - and those black thieves deserved to be thrown at if ever anything did. But as he made to launch the first stone, he laughed and flung away the whole handful, saying to himself: "My young man, remember you 're ploughin' to-day, not playin'! Suppose Marse Major came and found you throwin' rocks! You might be out of a job - besides, it ain't fair."

He had let the mules make their own pace, sure that they knew enough to make it safely slow. As the sweat broke out on them in faint darkish lines around collars and backbands, he smiled and drew a long breath then said, nodding his head: "You'll stand up to it, nice girls!" And then all at once, he was so hungry he thought almost enviously of Dan and his corn-cake. He was thirsty too—thirsty enough to make the image of the spring half a mile away very tantalizing. With a quick turn, he checked the mules, looped the line over the left plough-handle, and ran to the bushes where he had left his runlet.

As he reached for it, something caught his hand, pinching hard, and somebody said sepulchrally: "Boo hoo! the snappin' turtle got you that time." He parted the brush, and there was Patsy, his tomboy sister, balancing by her elbows upon the edges of the sink-hole, and kicking her feet against the sides of it. Joe was fond of her, but not nearly as fond as he would have been if she had not happened to be so very like himself. He had ideas about girls. They ought to mind about things - especially their frocks, he thought - and be afraid of things, particularly such things as snakes and freckles and guns. Patsy was not even afraid of fishing worms. She baited her own hook when they went fishing together. What was much worse - she usually caught bigger fish.

"You 're tryin' to get snake-bit," Joe said, as sternly as he could speak.

Patsy scrambled up and out on all fours. "Snakes don't harbor this time o' day," she said. "They re like you — too hungry! Here is your breakfast! Eat it, and be glad I did n't hide your runlet. I thought about it — but was 'fraid to put it in the sink-hole. I did n't know but it might roll down clean to the bottom."

Joe had left his team with heads over the broken ground, but while he ate and drank the mules turned half about, and began to nibble clover. Patsy stepped in front of them, pretended to shake her fist at them, and said with a frown at the leader: "Sally-gal, I thought you had more sense! You ought to know that second-growth stuff will make you slob-

ber yourself 'most to death."

"No, it won't! Not until August! But here's what's a heap better," Joe said, coming to them runlet in hand. He filled his palm generously with water, and held it to each mule's mouth. They drank eagerly, and Beauty rubbed her nose against his sleeve, making the while a little soft satisfied noise. Patsy nodded approval: "You'll make a ploughboy yet," she said judicially, in her father's own tone. Joe pretended to throw a soft clod at her by way of answer, but as she walked off, he called to her over his shoulder, "Thanky, Patsy! It's too bad about

you though. I do wish you were - the boy

you ought to be."

The dew dried fast - so fast the sun-heat took on a tonic quality. The mules went freer, and faster, breathing deep, yet not laboring in the least. The second sweat came out in a reeking smother all over them. When it dried in crusty white lines Joe drew a sigh of relief. Twice wet, twice dry, he knew his team was proof against the heat, for that day at least. It was fierce heat - still it was not the sun that would send them in at eleven or a little later, to stay in stall until three of the afternoon. It was the flies - the flies which in spite of the nets kept them kicking, biting, stamping, at times almost squealing. That was the worst part of breaking pastured clover land. Cattle had drawn and left there such clouds of flies.

The plough hardly ever choked in the aftermath; though the growth was so heavy it was not tall and tough like the early stalks in the pasture-ground. Going farther and farther into the swales the plough encountered the long stalks in mats. Grazing beasts are something finicky — they choose to crop short sweet herbage rather than that which is rank and coarse. Even in hay they know the difference. Many of the swale-stalks were over two yards long, and set throughout their

length with blossoming branches. They did not stand upright, but curled and writhed themselves together, swelling as high as the knee. The plough could not begin to bury them, and though the weed-bar ripped through them savagely, Joe had to stop every little while, turn the share half on edge, and free it with his heel, from the mass of gathered stems.

Once a humble bee stung the heel, but so slightly it smarted only a very little bit. Once too a green garter-snake made him shudder by wriggling out of the tangle across his bare foot. That made him think seriously of putting on his boots, but he decided to risk it until he took the mules to water. He would take them to the creek, and thus have a chance to see how Slow Pete was getting on. creek-road ran through the grass land, cutting it into nearly equal halves. His father was there, watching the outlander, who had come around preaching the gospel of subsoiling, and ready to prove his faith by works. He had a plough of the pattern he wanted to sell, also an ox-team to pull it. The Major had struck a contingent bargain with him, to subsoil five acres, and lose his work, and his selling chances, unless the crop next year was heavier on the subsoiled plot than on the ground merely surface-broken.

The sun began to blister. It shone so hot

the tender aftermath wilted almost as the furrow was turned. Joe stopped the mules, let go the plough, and stretched himself long and hard. He had never known before how tired a boy could be. Still he had no thought of giving up. That was not the Baker way. If the Bakers made bad bargains, they stuck the closer to them. Joe wiped his face, loosed his shirt-collar, and comforted himself by the reflection that the first day was always the hardest.

Just then he heard the watering-bell—the very welcomest sound in all his life. In a trice he had the gear stripped from his mules, and laid orderly back upon the singletrees, and was clipping away toward the gate. A big branchy red oak shaded it. The shade was like a cool green cave. The mules stopped short as they stepped within it, and Wicked Sal gave a little whimpering bray to Tiger, trotting in ten yards behind her.

Slow Pete was breaking the old grass in ridge and furrow. That is to say, he was turning over a furrow slice to lie flat upon an equal breadth of sward. Tennessee ploughmen call such half-breaking of weed-land, whip-stitching. The use and reason of it is to prevent surface-washing upon slopes and ridges. Pete's plough left the field's face all in little hills and valleys. He was not plough-

ing, as the others were, for wheat. Rough old sward requires a year under plough to fit it for small grain, or if badly beset with broom-sedge, the pest of all south-country grassland, two years. The sedge stalks are so stiff and glassy, the roots so tussocky, they make the soil too thirsty for either wheat or mowing grass. Arable land has many caprices of condition. Earable land, old English law writes it, perhaps with regard to eared crops, as wheat, rye, and barley, which grow

only where ploughs have run.

The subsoiler was well up, though his oxen could not step with the cross-matched team. The oxen were big red fellows with tapering horns, a yard in spread from tip to tip. They held their heads low, and went so slowly Dan said it made you tired to watch them. But the chain which drew the deep-running invisible ploughshare never slackened. The share turned nothing, threw up nothing. Lifted for unclogging after it had touched a water-vein, it showed as an uncanny long-shanked thing, well-scoured, and shining in the sun, with a clot of very bright red clay under the tip. The clay upon the long shank was of a warm chocolate yellow, very unlike the topsoil, which was almost black with unwholesome faint green scum at the surface between the grass roots.

The outlander did not himself hold the plough — he had another man to do that. As he scanned the plough-shank he said persuasively: "Well, Major, what do you say to that? We're letting in air and daylight at least twenty inches down for you. Soil that deep must be worth more than just a skim."

"Maybe," Major Baker answered, with a cautious smile; "but I can tell you more about that when the crop is gathered next year. I know you can easily have light soil

too deep for wheat."

Notwithstanding, the Major did not undervalue the work of light and air. It was knowledge of their worth which had made him order ridge-and-furrow. Frost would creep through the ridges, sweetening, melting, mellowing them; air and sunlight would flood the furrows and finish what the frost had begun. Besides the old sward would die better—partly from exposing its roots, partly from smothering. So would the pestilential wild growths, sassafras, saw-brier, and dewberry. Every inch of turf was netted with them—they made it so tough, indeed, the mules had to rest and blow after every round. It was thus that the patient oxen, never hasting, never resting, kept up with them.

The mules pacing down to water snorted skittishly at sight of the ox-team. "You

know when there's strange work afoot—don't you, nice gal?" Joe asked, patting Wicked Sal on the shoulder. Blarney crowded close up to rub her neck against his hand, and Beauty gave a little complaining whicker. Gray Nell, Pete's leader, trotted out to them with Pete on her back. Grinning broadly, he said: "I caint hep but laugh! I been laughin' all de mawnin' dest thinkin' 'bout whut dat dar ox-man would do, ef us wus ter run 'crost er bumblybee nest."

"Mought be dat's er good thing," Dan said thoughtfully, motioning towards the subsoiling. "But — you hear me! I don't wants none o' hit. I don't nebber wanter be ploughin' way down whar dem water-dawgs libs. No sir-ee

bob! Dat I don't!"

The mule began to gallop. They scented running water. When they came to the creek, they plunged in, turned their heads upstream and began to drink thirstily. The ploughmen let them have one deep swallow, then snatched up their heads, and held them up a minute, before letting them drink their fill. After the drinking they stood in the stream splashing water all about while the ploughmen went to the spring, lay flat upon the brink of it, and drank and drank, almost as the beasts had drunk, with living water slipping past their lips.

It took grit to go back from rest and shade and cool freshness to the ache and burning of the fallows, but Joe did not flinch. He had put his hand to the plough rather against his father's will; besides, though he had a decent enough gun, he wanted a new one very badly. Breech-loader, choke bore—he thought of it, over and over, between whistles and chirrups to his mules. It would cost a lot—more, no doubt, than a fallow-hand's wages. He was likely to get it whether he ploughed or not, but somehow he felt that he should care more for it, if he knew he had really earned it.

Dan was singing in the unspoiled African voice, full of pure melody. He sang a bold air, and lively, one that had come down from the slave days, when every sort of work had its chant in time and tune. singing broke welcomely across the sunlit hush. Clouds were boiling up in the south, but locust and rain-crow alike had fallen silent. There was not a breath of wind, but sound carried so as to forebode a thunder-shower. The words came distinct and clear across the unbroken ground. If more of it had been ploughed they would have blurred. Joe caught the rhythm of the singing. He had not much breath to spare, but as strongly as he might, he joined in the chorus. And so

in the white-hot sunshine, bar answering bar, three hundred yards apart, they sang the fallow song.



IRD-EYE lady tell de pigin
" Howdy!"

Bird-eye lady sooner in de mornin'!

Pigin flop an' flap tell he make de worl cloudy! Bird-eye lady sooner in de

mornin'

Bird-eye lady! Bird-eye lady! Bird-eye lady cloud so cool an' shady!

Bird-eye lady tell de pigin "Howdy!"

Bird-eye lady sooner in de mornin'

Cloud talk "Rain!" an de rain talk: "Res', sir!"

Den de nigger an' de mule kick dey heels up an say "Yes sir!"

Bird-eye lady see de mules er crawlin'!
Bird-eye lady, sooner in de mornin'!

Bird-eye lady hear de rain-crow callin'!

Bird-eye lady sooner in de mornin'!

Bird-eye lady hear de rain-crow callin'! Bird-eye lady here's de rain er fallin'!

Rain-crow tell de crab-grass: "Grow! Don't you res', sir!"

De crab-grass answer back: "Yes sir! Yes sir!
Yes sir! Yes sir!"

## Wasps and Ants

## Chapter II



ALLOWING lasted six weeks—from mid-July to the end of August. Throughout it, Joe spent the most part of Sunday flat on his back, realizing, for the first time in his life, the

sweetness of doing nothing. It was pure bliss to stir drowsily at dawn, remember the day, and roll over again for a long, delicious sleep. Then when he really awoke, what joy to lie relaxed, at full ease, upon white sheets smelling of rose leaves, and watch the vagrant creeping sunrays set little suns, blurred and tremulous with leaf-shadows, here, there, everywhere, on the clean oak floor!

Through every fiber his body cried out for rest, but his mind was more than ever active. Thus he fell in the way of watching things—the things that flew and crept and crawled. It was not wholly a new pursuit—he had

entertained himself casually with them many times before. But long looking required one to keep unreasonably still — so still, Joe made up his mind one had to be very tired to get

great diversion from it.

Now that he was tired enough, he watched and wondered. As to the dirt-daubers for instance. Were they the creatures which the books called mason-wasps? They had the true wasp-shape - were slim, uncanny-looking, greeny-black, or bronze-black, with beautiful gauze wings. But, so far as he knew, they stung nothing but spiders - he had caught and held them without provoking attack. Joe could not in the least understand why Dan so hated and feared them. Dan said: "Dam dar dirt-dobbers dee des all de time ca'in' news fer de witches." He would climb to the very top of the stable to break up a dauber's nest, and rub the place with yarrow. After the rubbing, he stuck sprigs of the green plant under the ridge-pole, climbed down, walked out of the stable backwards, and turned around three times upon his left heel before lifting his eyes.

Joe's mother also hated the daubers, but not on account of witchwork, though she admitted their noise made her feel creepy. She was a pattern housewife, so had no use for creatures which littered her back piazza floor

the whole summer through. It was a cedar floor trig and tight, laid down rough but worn smooth by uncounted scrubbings. The posts were also of cedar, with rails of seasoned poplar running between. There was no ceiling - nothing overhead but rafters and roof. The roof was sharply pitched, of hand-drawn oak shingles that had been on twenty years, yet seemed good for twice as many more. Space underneath them was curiously divided between winged tenants. The red-wasp zone came at the very tip-top, in the keen angle of roof and house-wall. Fruit-wasps, brown, gold-banded gentry, ravagers of orchards and vineyards, came next lower, but their nests were invisible - they crawled behind the weather boards, and burrowed into the daubing of the log walls. Any way they were not plenty enough to fill a whole zone. daubers more than made up for that. zone indeed threatened to become a continent. Left to themselves they would no doubt have overrun the whole space, but since they built low enough to be within reach of a broom, betwixt Mrs. Baker below, and the red wasps above, they were held within reasonable bounds.

Joe cared least of all for the red wasps. It was not only because of their ill-temper—they stung upon occasion or without it—they

seemed to him as mechanical as they were fretful. Then too, when a nest got populous the drip underneath it was not good to smell. It dried upon the floor or the wind-beams or whatever caught it, in whitey-gray splotches fine and thin as mist, but with something of the same pungently acrid odor that came from a ball of fighting wasps. Still he wondered where the red wasps came from - in early spring they were so very few, and by late summer so very many. Nests that ended broader than the two hands began with no more than half a dozen roundish cells set on, rosette fashion, at the end of a stout pillar of wood-pulp paper, anchored to and pendant from some sheltered surface.

Joe did not know that fertile red-wasp queens live through the winter, sleeping away the cold in snug cracks or caves or cellars or barns. Very early in spring these hibernating queens creep out, feed a bit, then set themselves to nest-making. The pillar and first cells are the sole work of the swarm-mother. When she has possibly half a dozen cells she lays eggs in each, which very soon hatch into tiny grubs. These the queen feeds and tends, distilling for them within herself a sort of brownish liquid, from honey and the juice of insects. In twenty days or thereabouts the early grubs come out strong young worker-

wasps, which at once set themselves to making new cells. Thenceforward the nest grows magically. Relieved of family cares, the queen gives her whole mind and strength to egg-laying. Her elder children feed and care for the younger ones as they themselves were cared Midsummer often sees a nest with a thousand cells. Since the first cells are used over and over that gives some idea of a waspcolony's late summer strength. Nests with many thousand cells are not uncommon. Sometimes a new pillar is built out from the middle of the first paper comb, and another and bigger nest hung below it. Oftener it happens that a queen is somehow destroyed while her first brood is in cell. Then her deserted nest stands the summer through no bigger than three fingers, a piteous monument to frustrated maternity. In the peopled nests, late summer sees broods of drones and new queens. They reach maturity only a little time before frost. When frost threatens, the queens and the workers quit the nest, leaving the poor drones and the immature brood to The workers shift for themselves until cold makes an end of them, while the queens crawl away and hide themselves in winter quarters. Earth-nesting wasps are reported to drag out their young at the approach of frost, and strew them upon the ground where

birds may devour them, evidently feeling that sudden death is much better than slow starvation.

If Joe had known all this he would have watched the red fellows with keener eyes. Even as it was, he noted that though they worked hard, and showed themselves the hustlers of the air, they did not begin over-early nor stick very late. Until the dew was off, they clung to the nest, and if it stormed, did not leave it at all. Upon fair days they behaved as though they had a rigorous eight-hour law - every wing was folded close around five o'clock. Whether they were communists, or had each an individual place, Joe could not quite make out. He knew that the early wasps slept perpendicularly, clinging to the nest-pillar, or in a partly finished cell. the nest grew big, at night the whole face of it was covered with wasps hanging flat, and other wasps inside cells, head downward, and only the heads showing.

The hotter the day, the livelier and more quarrelsome they became. Whenever the thermometer hovered around ninety-five in the shade, not a half hour passed but a knot of brawlers fell down upon the porch, buzzing mad anger with all their wings, biting and stinging as hard as they could. Sometimes, though not very often, a brawler was stung to death.

Always, when the knot disentangled itself, the fighters flew off in the worst possible temper, ready to sting anything that came in their way. Except when they fell thus, they rarely flew in and out through the piazza. They chose instead to light upon the weather-boarded gable, and crawl through the big crack between the weatherboards and the roof. Light or laden it made no difference—they came through the cracks with balls of wood-pulp in their jaws, crawled two or three inches, spread their wings, balanced themselves, then flew buzzing to the nest.

Joe wondered why the wasps waited until the dew was off before setting to work on weathered wood, gathering stuff for their nests; the wood was much softer with the dew on it. He decided that the wasps might find the damp fibers tough, and so prefer them dry and brittle. Every Sunday he wished for a microscope so he might look close at their wonderful fore feet, which spread out the pulp-balls into such beautifully smooth cellpaper. He thought further that there must be sluggards among them. Watching them, he thought he had seen the beginning of more than one quarrel, when a swift worker buzzed and fumed impatiently, waiting laden, for a blunderer to get out of its way. Some cells too, were better-shaped and smoother than

others, and some wasps ever so much bigger and stronger than their fellows. He could not in the least understand how anything so strongwinged, savage and cunning as a wasp ever let itself be trapped and killed in a gauzy spider-web.

The fruit wasps did not fight among themselves - perhaps there were not enough of them, but they did fight the red fellows to a standstill whenever the reds came whirring arrogantly about through fruit-wasp territory. Then it was not a case of the battle to the strong. The red wasps were unquestionably stronger, and had more venomous stings. But in fighting the fruit wasps turned upon their backs, and bit and stung with such judgment they rarely failed to be victorious. There was this to be said for them - they never stung unprovoked. If you had the nerve not to flinch, one of them might crawl up and down a bare arm, yet fly away harmless with a merry buzzing of wings.

That is but another way of saying they are fine gentlemen on wings — much the finest, Joe thought, of all that lived on the piazzaroof. Besides honey and fruit-juices they fed on caterpillars, and occasionally on spiders. When the caterpillar was very big, maybe three times as heavy as its captor, the wasp brought it home by stages, flying a little way

with it, then resting, perfectly motionless with wings shut tight. Commonly the last rest was upon the piazza floor—after it the wasp mounted to the nest plane in slow rather wavering spirals, keeping all four wings in rapid motion. Caterpillars were not carried like spiders, nor as the red wasps carried paperpulp, in jaws and between fore legs. The wasps caught the caterpillars back of the head, stupefied them with judicious stings, then sat with all six legs astride their backs, held fast, set all wings fanning, and rose from the ground, but never very high. Indeed throughout the hunting they flew so low it was a standing marvel how they ever managed to mount to the nest.

But after all, none of the others were as funny as the dirt-daubers. Once they had made their minds up to build a nest upon a particular spot, they knew no such word as fail. If their mud-walls were knocked down, they swept off the place with a rapid fanning of wings, and laid a new foundation. Joe saw them do this four times one morning in the time between a late breakfast and a noon dinner. That made him understand about Dan and the yarrow. White Oaks daubers somehow could not abide the smell of the plant. Dan said the reason was, yarrow was a conjure herb, but upon that point Joe reserved opinion.

There seemed to be no proper dauber community, though several darted and buzzed about the nest. A mud-castle, once begun, went up and forward with a rush. Still the daubers made haste slowly. Mortar they got most commonly out at the chicken-trough in the back yard, where there was nearly always water spilled over the edges. Sometimes a dozen settled upon the soft earth at the margin of the over-flow puddle and began to ball up the soft earth. It required some minutes to gather a pellet, shape it properly, and balance it for flying. Before starting to the nest there was a trial flight of a few inches. If the flyer settled either forward or back, she at once alighted and shifted her burden back or forth.

Sometimes the puddle dried quickly, leaving stiffish mud behind. The daubers gathered balls of this, and crawled with them cautiously to the edge of the trough so the water in it might soften the balls and make them spread properly. If the mud crusted all over, the daubers crawled about evidently in search of a wet spot. When they did not find a wet spot, they flew away, either to the far trough, in the edge of the orchard, or to the calf-lot pond more than a hundred yards off. If they took these long flights they were much apter to drop their mud-balls, although they rested once or twice on the way home.

Joe could tell where they had been by the color of the dropped pellets. Mud from the orchard was almost black, that from the calfpond distinctly reddish. Sometimes he purposely renewed the yard-puddle — he liked to watch the nests grow, and they grew very much faster with building stuff handy.

Building began by sticking a thickish lump against a flat surface. Two or three balls commonly went into this lump. The walls spread from it either side in a sort of semi-Gothic arch, and grew to a gallery, often longer than the hand. Throughout the building the arch remained. New work began in the point of it - a laden dauber stuck a mud-ball there and spread it down one side or the other, using fore legs for trowels, and stretching the ball into an earth-cord. Dried, these round cords formed walls as thick as thin cardboard, and ridged delicately all over. Each ridge outlined the wall-arch. Sometimes a dauber built so fast there was an inch of gallery with the mortar still wet.

The daubers were poor judges of mortar, for all their experience. Black stuff, such as came from the orchard, was hardly worth bringing in. Dry, it crumbled for the least jar. Red-clay mud made fairly good walls, but not as good as yellow, which dried almost flint-hard. No dauber in good standing was

ever satisfied with a nest of one gallery. As soon as the first was an inch long a second was begun, then a third, a fourth—a seventh even was not at all uncommon. As a gallery lengthened it was walled across into cells a little more than an inch deep. Before a cell was finally sealed, it was crammed full of spiders or caterpillars, not killed but deftly stung into paralysis. It was not a complete paralysis. After the sting, a spider's legs would quiver, a caterpillar move feebly. But the creatures could not crawl. If the daubers dropped them, they lay where they fell. Sometimes the daubers flew down, and made a feint of picking up their lost prey, but more generally they flew off after fresh game.

Joe decided that the daubers purposely let fall some of their captives. He knew the spiders and caterpillars were meant to feed the young daubers that would hatch out in the cells. Dauber-grubs fed by sucking, and dead insects would be too dry for that, long before the grubs hatched out. He had knocked down dauber nests in mid-winter, and found the spiders in them still soft and plump, even faintly alive. So it was reasonable to conclude that the castaways were castaways because they had been stung so they would die—either too deeply, or in the wrong place.

Speculation upon the point sometimes sent

him to sleep. The speculation was, however, mightily aided by the noise of daubers at work. It was a sharp vibrant metallic humming, which began as the mud-ball was set on the wall, and ended when the last grain was properly spread. Joe thought if fairies played on the jew's-harp it must sound much the same. He was, you see, a jew's-harp player himself. When half a dozen daubers worked and harped at the same time, he found there was a difference of almost half a note in the volume of sound at the end, and the beginning. It was loudest at first, and strongest and clearest when the mortar spread easily. Daubers did not always make good jobs of the spreading. Often Joe saw lumps bitten off, and whole new earth-cords gone over. For the most part the galleries ran straight and plumb, but one much harried builder, ran up a fifth nest with walls as crooked as could be, and slapped on fresh galleries wholly at haphazard.

The daubers crawled with wings flat at the sides, now and then lifting them, and dropping them with a faint flick. Sometimes only the wings on one side went up. More commonly they raised wings on both sides. The wing opening and shutting was almost instantaneous. The daubers did not crawl with spread wings. They left that to the

wasps, red and brown. A crawling wasp whose wings are folded either over the back or at the sides is reasonably peaceful. Crawling with spread wings it will sting anything stingable—and sometimes try to sting those which are not, as posts or boards.

Hornets were regular piazza busybodies, darting everywhere about it after flies, their favorite prey, alighting now and then to dress their wings with their fore feet, or to rub off the feet themselves upon a smooth wooden surface. But they did not nest on the piazza. Instead, they built around a three-pronged bough in the sweeting apple-tree. Weatherwise folk said their setting the nest so high was a sure sign the next winter would be mild. Before a very cold winter — thus the weather sages - hornets build low, on shrubs or even weeds, and make their paper walls extra However that may be, the nest is built in rings much as an onion grows, with cells like wasp-cells in between the rings. The building begins modestly, yet the nest which at first is no bigger than an egg, may end by reaching the size of a water-bucket. In shape it is always an irregular oval, in color grayish. Sometimes the small end is up, sometimes down. There is an opening at the bottom, through which the insects fly in and out.

Rain and dew did not daunt the hornets; further, they kept at work from daylight until dark. They were indeed very much the most energetic among the nest-builders, also the most ill-tempered. They stung with malice aforethought, and did not even fly about their own affairs without buzzing complaint. Notwithstanding, Mrs. Baker tolerated them partly, it is true, because she could not help it, and partly also on account of the flycatching. They pounced hawk-like upon every fly they could surprise. That was not very many. Fly-eyes have so many facets, that dilettante insect sees as well behind and at the side of himself, as before. Hornets are far from being so clear-sighted. Many a time they pounced upon a little black spot, mistaking it for a fly. They were fond also of spiders, but more wary of attacking them than either the wasps or daubers. If they ever attacked a spider hard by his web the chances were rather more than even, that instead of catching, they would themselves be caught.

Spider webs are often so fine-spun they are invisible except when hung with dew. So it was not at all strange that the hornets, hot-tempered, blustering, almost ruffianly blunder-heads, often fell foul of them, and by their frantic rage only entangled themselves the

more fatally. As between the spiders and their various enemies, Joe decided that the webs caught three hornets to one wasp, and at least two wasps for every dauber.

Nearly ever since the piazza was built sweatbees had made nests in the rails across the east end. The rails were about three inches through and nearly always damp from the shade of the honeysuckle trellis outside. They had been painted white. The paint was now mainly a reminiscence. They were set ten inches apart and had upon the bottom an inchwide flat space. It was in this that the sweatbees always began work. They worked in pairs, and stuck to the second rail which they had chosen first, weakening it so much that it had had to be replaced more than once. There were always three or four pairs of them, never more nor less. In early June they began chipping out a round hole as big as the finger. Each pair made a separate hole, and the two took turns at the chipping, one resting while the other worked. For maybe an inch the hole went straight up, then turned horizontally and ran several inches right or left, with the grain of the wood, and was shaped into a rounded nest chamber. Sometimes they made two or three false starts, so evidently they were not over-easy to please. In boring straight upward, their chips took care of themselves, but when it came to cutting the gallery, and hollowing the nest proper, they crawled with the big bits to the mouth of the nest and dropped them outside, then set their wings buzzing so strongly the fine dust was fanned out.

They were black and gold like humble bees, only smaller. They lined their wooden walls with bits cut from flower-petals, most generally roses—at least Joe believed so, he had found bits of rose-petals dropped below the nest. And when he had split up one of the condemned rails, he had found some wooden chambers empty, others full of darkish sticky stuff something like bee-bread, meant no doubt for the nourishing of another season's sweat-bees.

He was very curious about the death-watches that lived inside the house, hollowing out winding homes for themselves in the oak logs of the big dining room. But all he was ever permitted to find out was that the insects looked like yellow-jackets, only stouter. His mother hated to hear the creatures named—her black mammy had told her in child-hood that they "knew when death was ridin' and would keep it away from houses where they were let alone."

So when he grew tired of lying upon the piazza floor beside his baby brother, Billy-Boy, his head on Billy-Boy's sheepskin, his eyes fast on the piazza roof, he got up, picked up the baby and the sheepskin, and took them out upon the shady grass at the end of the house. There he could see what the ants were doing. In a way they were old friends of his. When the flying ants swarmed in the spring he knew danger of frost was over. They came out with a rush, almost like the spray of a fountain, lost their silver-gray wings pretty soon after they touched ground, and became ordinary big ants, black or reddish. Some of them were almost an inch long, but did not sting as viciously as the little red ones which were the pest of midsummer housekeeping.

If Joe had known that the flying-out was a tumultuous ant-wedding, he would have been more than ever interested in watching it. As the case stood, he did not care for the fliers half so much as for the little black ants -Æsop's pismires. The pismires had a strong nest somewhere in the chimney foundation. Joe liked to put out a lump of sugar upon the chimney shoulder twenty feet in air, and watch what happened when a ranger-ant found it. He was certain there were ranger-ants - insects bolder, and of better brain than the rest. He saw solitary fellows going everywhere, up, down, across, around - to the chimney-top, the garden fence, or all about the big oak trees seeking honey-dew to devour. The most of

folk thought the honey-dew fell like other dew, but Joe knew better — he had read about the insects which secrete it, and serve in a manner as ant-cows. But that did not interest him half so much as watching what the rangers did — how they hunted, and when they had found, went home to the nest by the best route, blazing out a path for the worker-ants to follow.

He spent hours, propped on his elbows, looking at the paths and what went on in them. The paths appeared to be barely wide enough for two ants to travel side by side, or one to pass another, coming or going. Usually the ants moved in two lines - one going out light, the other coming in laden. The light line always gave road to the loaded one — that is to say, turned a little out, so the loaded fellows could keep straight on home. But there are rogues among ants as well as among men. It happened sometimes that a rogue-ant tried to seize on what another had brought nearly home, and take it to the nest as his own. The rogue did not turn out. Instead he stood square in the passway, snatched at the load as it came against his head, then made to turn and run back. he surprised the other ant, broke his hold, and got the booty, he did turn and run. Otherwise there was a very pretty fisticuff. The two rose on their hind legs, and with their fore ones pummelled each other soundly, both keeping jaws fast upon the thing in dispute. Generally they fell over, thus blocking the path and getting a huddle of distracted ants either side themselves. The crowd jostled and scrambled in a mighty human fashion as though trying to see what it was all about, but commonly the disturbance was over in a minute. One fighter or the other quickly gave in. Sometimes Joe saw two ants or even three struggling home with a big load - say a grain of rice or wheat kernel, or a crumb of bread. They had their heads beneath the load, their bodies spread out in wedge-shape, and held their heads as high as possible, so as to keep the load clear of the ground. Once or twice he saw a fourth ant stand almost upright opposite the bearers, propping the load with head and fore legs, and walking backwards with funny mincing steps.

An over-loaded ant or a tired one seemed sometimes to ask help of another. The tired ant dropped his load, stopped and rubbed a feeler over the helper's head, then picked up his burden and went on with it. The light ant ran on an inch or so, then turned, overtook the tired one, put his head under the load, and kept it there until the nest was

reached. If a straw was laid across the path, they dropped the load, and measured the straw with their feelers, first one then the other. Then they tried the ground to see if they could go under the straw. If they could not, they ended by picking up their burden, lugging and tugging it to the top of the straw, and tumbling it down on the other side.

Blocking the path with a pebble, a pinch of earth, even a splash of water was much more serious. Ants gathered in knots either side the obstacle, turning uncertainly about, until a ranger came to lay out a new path for them. The new path was almost always around the obstacle, not over it. By wetting the ground either side the path for a little distance, it was possible to make the ants crawl over a pebble. Loose earth they would not set foot on - a strange thing when one considers that they nest so often in earth - indeed that they cannot live without earth. Where a path was blocked continuously for a yard or so, or two or three times close together, the rangers abandoned it, and struck out a new one.

Joe fancied the ants followed their paths by scent. This was because water in a path set them at fault even after it had dried. He believed also the pathmaking was in the nature of a providence to help ant-swarms to their proper

nests. Swarms from many points fed on the same honey-dew - there would be a mighty mixing up of families unless each inhabitant of a nest knew beyond dispute the proper road Occasionally he saw what he took for a stray ant - one which ran bewilderedly back and forth, turning in the path about every yard or so, and obsequiously keeping out of the way Notwithstanding the obsequiof all it met. ousness, the ants to whom the path belonged fell upon these presumable strangers, cuffed them, hustled them roughly about, and at last drove them to seek shelter in the grass or leafage outside. Joe wondered a little if the strays starved there, or if, in the end, they managed to steal home.

He was sure the ants were all weatherwise. Else how should they, when honey-dew was plentiest, six hours before a rainstorm, so crowd the paths to it they were fairly in each other's way? Sometimes then they tried to come and go three abreast in paths just big enough for one. He laughed to see the tangle they made, and thought how odd it was, with all their foresighted wisdom they knew no better. Another thing these Sunday studies taught him, was the wonders and uses of ant-feelers. They were such little things, much finer than hairs, set on in the middle of the forehead, yet able to reach back, forth, sidewise, up, down, around.

By help of them the ants knew what was edible, what impassable, what safe, and what dangerous. Anything they came to, the feelers examined. Joe told himself the feelers were much more than feelers—they stood to the little black fellows for hands, eyes, ears, not to mention nose and tongue.

## The Ragged Month

## Chapter III



N Tennessee, August is the ragged month, especially towards the end. Pastures, in the main, are bare and sun-baked; the yellowed corn blades have begun to whip and tatter. If grasshoppers are plenty

they eat the high corn-blades to the midrib while still they are green. In fields so eaten the whipping sounds like a battle of willow wands. Gardens lie waste and weedy, except in the late cabbage plots, and the sweet potato patches. But in the flower borders there is a fine riot of red and yellow, and pink and purple, with now and then a blotch of white.

Verbenas, petunias, phlox, geraniums, nasturtiums, are, each and several, the real sunflowers. The sun never shines too white-hot for them. They live but to meet such shining, and stretch out stems almost fabulously long, in the effort to escape from shade. Upon rainy days they either close or droop, and stand patterns of sad-colored constancy, in wait for their liege. But the big staring blooms, dahlias, sunflowers, zinnias, and late hollyhocks, rejoice in a moderate downpour and after it laugh out in new beauty. August freshets wash out and beat down even the hardiest blowth.

Roses bloom through the ragged month, but languidly, after the manner of fretful fine ladies impelled solely by the obligation of nobility. It is an ephemeral blooming—fresh one morning, faded and falling the next. But what would you have? The bushes are ripening new wood, striking new and stronger roots that the late autumn blooming shall be richer and more perfect than even the roses of May.

The orchards have their own ragged story, told by rifled boughs, and bent and broken ones. Stripped peach boughs in particular, are ragged to the point of desolation. Peaches ripen quickly, once the time of ripeness comes, and only a few among them — the old seedling sorts — hang long after ripening. To taste a perfect peach you must eat one that has fallen of its own ripeness from a high sunlit bough where the free winds played over it, yet where it had a due and proper shade. The sunny side of a peach is always juiciest and of the finest flavor — still sun-baking makes

the fruit tough and leathery. Furthermore sun-baking presages lack of sufficient leafage, and it is the leaves which elaborate the sap, making it fit to feed wood, and fruit and root. A tree stripped of leaves just as its fruit was ready to ripen, would be apt to die. Certainly the fruit would dry and shrivel. Grape vines so stripped do die down to the root. Next year they will grow again from the root, but it will be several years before the growth is normal.

Feathered folk are the raggedest things of all. From the big bronze turkeys to the tiniest bantams, they give their whole minds and bodies to getting themselves new coats. much the same with the birds. The fledglings have shed part of the nest-plumage, so are more unkempt and pen-feathered than even their elders. The ground beneath a hawk's or owl's roost is flecked with cast-off quills and hackles. Birds of prey have all an instinct of fixity, and unless greatly disturbed, nest and roost on the same spot year after year. They preen themselves and dress their coats before leaving the perch. Still now and then a straggling loose feather flutters down as they fly in aerial heights.

Ishmaels of upper air, with beak and claw against every other feathered or creeping thing, hawks yet cry softly and clearly, one to another, especially hungry young hawks, just out of the nest. It is a cry of three notes, melodious, and pleading, unlike yet pitched in key with the call of the mourning dove. If the young hawks cry continuously upon an August morning it is to the countryside almost a certain sign of rain before midnight. The three notes are insistently repeated, after a barely perceptible pause. The sound is curiously vibrant and carrying, often coming clearer across stretches of open field than in the woods about the nest. The young birds haunt the vicinage of the nest, long after they are strong on the wing. They grow so rapidly, and take wing so easily, it is only this haunting that by mid-August distinguishes them from their parents.

Hawks commonly lay two eggs, but the bigger ones, such as the red-winged hen hawk oftener than not raise but a single nestling. That is true also of the horned owls, big brown-mottled fellows, six feet from tip to tip. Blue-tailed hawks which are small, yet savage hunters of quail, often destroying whole coveys of them, bring up their young in pairs. So do the comic screech-owls, the fussiest and most self-important of all birds. Owlets speak to their parents and the world at large, with a sort of chuckle, half querulous, half wheedling. They are full-fledged before they quit the nest, which is in either a hollow tree, a dry cranny

in the bluff, or a dark safe place in some deserted building.

Negroes call the screech-owl "squinchowels," and hold them in dread as prophets and fore-runners of bad luck. A screech-owl crying on the roof they say brings death to the house; if he perches on the fence he is "callin' trouble," and if he drops down the chimney either hunting swallows, or hiding himself from sudden daylight, somebody will get burned to death within the year. There are various counter-charms - flinging salt, a black walnut, or an Irish potato at him, chewing a tow wad to shoot him, or making everybody in the house, when he comes down the chimney, walk out of it behind him as he flies away. To kill him inside would simply clinch the ill luck. Even to hear him screech in woods or fields when anybody is sick, means that the sick person will die, or come near death.

Woodlands stand hushed and desert in this, the turn of the summer. There are days when no wind stirs either the low leaf or the high. Oak-leaves are stiff, and shine as though varnished, especially those of the Spanish oak, and the scrubby black-jack. Dew drenches the fields, yet is light in the woods upland. Trees growing along the creek, or in low moist swales, gather it so heavily the least ruffle of air toward morning sends heavy drops

pattering down. Still the undergrowth always seems thirsty. The struggle for existence, always sharp among growing things, comes to a fighting finish in August heats.

The low-growing boughs shut away from sunlight, perish, the thickets grow ragged with fading leaves and dead stems. Nature's law is inexorable. If the root cannot suck up sap and substance for the leaves to shape into new living wood, then it is better the whole plant should die than remain and cumber the ground. The mounting sap is mainly water, faintly tinctured with various elements. The chiefest of them is carbon, in the form of carbonic acid. This the leaves turn back into oxygen and carbon, keeping the carbon in their own cells, and giving off the oxygen from their under sides. They also give off much water. Even a small plant in vigorous growth soon covers a bell glass set over it with goodsized drops. A tree three feet through at the ground is estimated to send up to its trunk and boughs, in the season of full growth, about five barrels of sap each twenty-four hours. And such is the force of the sending up, that if it were possible suddenly to check the transpiration through the leaves, trunk and branches would burst.

Since moist air draws electricity, which is the real rain and climate maker, it is easy to see how important a good breadth of forest trees is to arable land. Their deep roots suck up the waters under the earth, and send them out in fine invisible clouds to invite the clouds visible. But the trees distill in these clouds What the water brought to them, only water. they keep for their own enriching, mysteriously transmuting elemental substances into cells, sugar, starch, gum, oil, and woody fiber. The leaves are their laboratories. The leaves have done their perfect work in August. rich sap ready to swell and ripen every manner of fruit or nut, also to go down for the refreshing of the roots, and on the way, build up a ring of new wood.

Trees felled as the new wood is hardening, give the very best timber, provided the trunks are at once lopped of boughs and branches. Should they lie as they fall, with all their leaves and twigs, the wood becomes brash and lifeless, warping easily and hard to work. It never splits freely, but with a ragged eating-in of the grain. Windfalls, which are very plenty thanks to August thunderstorms, thus are often of no value, except for firewood. But whether wind-felled, or ax-felled, the timber lasts twice as long as that cut in May or June. Big trees do not sprout after August cutting, and even tenacious shrubs like sassafras often die of it. Indeed, there is a short period in

the month when woody things die almost at a touch. The stroke of an ax, a wheel jolting roughly over an exposed root, the wrenching of a branch, or a slight wound to the bark may be fatal then to the tallest, sturdiest oak. Greenly alive to-day, to-morrow it may be withered to the tip, and next week dry and dead. Yet lightning scathe is not so deadly as in early spring, though if the lightning shatters the tree, particularly an oak tree, it often makes the wood more durable than even felling. Slivers of it stay sound and keep shape, after whole trunks, cut and left on the ground, have rotted and crumbled.

Old man Shack, who rented a place in the flat woods, claimed to know by the moon just when this time of danger came round. If Major Baker did not fully credit the claim, he was too wise in the unwrit ways of wind and weather, and life, and growth, to scout it altogether. So he took advice of the old man before setting men at work in the bush pasture — fifty acres of tangle he had bought only the fall before. He had wanted it all the years it had lain waste, but the title had been clouded with a suit in chancery. When the suit ended in a decree of partition, he snapped up the field, although to get it he had to take also a hundred acres in the flat woods, for which he did not greatly care.

The fallow ground lay next it, running broadside to it indeed. There was a wormfence between - a line fence, rightly chargeable as much to one field as the other, though Major Baker had kept it up the ten years past. Upon his side, the corners were unpicturesquely clean, but those opposite made up for the fact. They were ablaze with yellow, and purple and scarlet. Golden-rod, ironweed, early asters, Spanish needles, white sumach grew tall there and rampant - higher than a tall man's head. Bents of the barrens grass also -as lusty as in the pioneer days, when it covered the whole face of the earth, and could be tied over a horse's neck as a rider threaded it. Occasionally there were sedge clumps, not quite so tall as the grass. Sedge loves the light earth of a hedge-row but cannot live in the thick shade.

Many other things love it. A fence-row is indeed the chosen haunt of vagrant woody stems. Elder bushes, hazels, wild cherries, wild roses, wild grapes, seedling apples, blackthorns, peach-trees, and selfsown honeysuckles disputed ground in this hedgerow with the legions and cohorts of sassafras and blackberry. Joe loved the sights and sounds and smells of the hedgerow. His plough crept near and nearer it each day. He was glad it had been spared so long — partly on his own

account but more because of the birds. So many had nested in it, June cutting would have been tragic. They sang very little now—only a few broken notes before sunrise, but whenever he heard the singing he wondered whether there would have been one to sing if his father had not decided to wait until old man Shack said the sign was right.

The sign came right in the very last week. O but then there was ruthless work! Ax, bill-hook, brier scythe, flashed in and out, in and out, and all the green growing things toppled to a fall. They were cut level with the ground and left to lie as they fell. The growth was so thick there was no need of piling. Green sedge and dry was matted over every yard of earth the bushes had left clear. The cutting was a tough job, but so many hands were laid to it there was a fine race betwixt cutters and fallowers as to which should get done first. Dan had finished in the pea ground and come over to Joe's help. The land was by that time so big a dozen ploughs might have run in it at once. Next to the last day, they slipped out at daybreak, and ploughed at night till moonrise, yet for all that, had barely time to raise a triumphant shout and head their teams for the bars, with the ploughs jingling against the pebbles as they dragged behind, before an answering

shout told them the last bush had fallen almost as the last furrow was run.

Joe flung himself down upon the broken ground, and lay for a minute motionless. He had made those last rounds with set teeth, keeping up entirely upon his courage. It had been dry for ten days. The tramped ground had broken up in tremendous yardlong clods, and the aftermath had grown so stout and tough it choked twice as often as at first. He sat up and looked down the long dun ridges, ragged and blotched with waving clover heads, then got up, and set his mules trotting, yet as he hung on to the plough-handle glanced across at the crisping tangle. He had no breath for speaking. He was too tired even to tell himself what he was thinking. But Sunday morning it came to him clearly. "It was a battlefield - two battlefields," he said to himself; " and battlefields, where there is so much fighting and dying, are bound to be ugly."

B ATTLEFIELDS of every sort in time become glorified. The rain and the fine weather, winds, sunshine, and seed-sowing, glorified the fallows. Frost-fall found them dressed in the green velvet of strong young wheat. And when the frost had done

its appointed work, of making the sappy green things sere and brown, fire came in to the help

of the tangled ground.

The line fence had been pulled down, its sound rails taken away, its rotten ones cast where they would help feed the fire. Then for almost a day Slow Pete and the crossmatched team ran furrows round about the tangle's other boundaries. Half an hour by sun, the plough stopped. The sky was faintly overcast, and the wind sitting due south, freshened so fast as to hint of rain. ground was dry and warm - powder-dry in spots. The leafy bushes, the sedge, the dead weeds, were as quick as tinder. They were so dry, indeed, Major Baker thought it safest to fire the field first against the wind - that is, along the north end before setting it along the south.

Eating its way thus against the wind, he knew the flame would be less likely to leap the barrier of fresh earth. If once it did whip across, it might creep into the flat-woods, and that would mean a running fight several miles long. He hated to see woods burned over, no matter who owned them; it hurt the timber so, and never helped anything, to say nothing of destroying the mast, and killing thrifty saplings. There might have been reason for it, in pioneer days, when there was no open

land for pastures, and stock of every sort ran out. Nimble Will always grew quicker and stronger and sweeter upon burnt land — so did the grasses of the little open meadows scattered through the woods. Times had changed. Then land and timber were both plenty enough to be had anywhere almost without asking. Now when both had settled yet constantly growing values, it was well worth while to look out for them.

So Joe, Dan, and half a dozen more, ran about with lighted sedge torches, firing the tangle a yard in front of the eating flame, until the sun went down. The burned over strip was some thirty yards across. Major Baker waved his hand. Instantly there was a race toward the other edge, not across the brushy space, but down the furrows, or the fallows. Slow Pete won the race, with Dan a close second, still Joe had the luck to set the first fire. The black fellows tried to light their torches from matches, which the wind blew out as soon as they were struck. Joe sheltered his very first match with his hat, until he could drop it upon a little pile of leaves; then the trick was done - there was fire and to spare for everybody.

Swiftly, lightly, the firemen ran up and down the line bent almost double so as to trail the flaming torches close along

the furrow edge. In a minute the work was over. Banners and pennons of flame leaped up into the sky, swirled into roaring vortexes, and swept hissing, roaring, crackling, sparking in showers, smoking in clouds, in sheeted splendor down the length of the field. In the swales where the tangle lay thickest, there was a curious drawing of flame to flame. Lesser flames either side joined to shape a fiery pyramid, whose waving point seemed to melt into the low clouds. Swiftly falling darkness made the flames majestic. Their light filled all the fields and flickered back like the angry crimson of sunset from the gable windows of the plantation house. The fallows were so bright, you could trace the green drill-rows half across them. moon, creeping up behind clouds, the round, red Hunter's Moon of late October, turned garish and ghastly by contrast with the field fire.

Undervoicing the flame, there was the popping of hollow weed stalks, the tinkle of woody stems crisping and falling in coals. Between them wind and fire were making quick work and clean. They would leave hardly a wagon load of bush-butts and charred sticks in the whole field. The burning sassafras gave out a clean, strong scent, wonderfully pleasant. Young pithy stalks of it popped like

the weeds, and the woody stems sparkled and sputtered like cannon crackers after the flame had swept on.

Once it seemed the fire must break out, in spite of burning and land turning. Just as the foremost tongue of flame came to the burned over strip, a savage flaw of wind caught it, bore it almost flat against the earth, and stretched, stretched it, until it lapped the outermost furrow. Five seconds more of the flaw, and the mischief would have been irrevocable. The wind lightened barely in time. The flame wavered, hovered in air, curled backward, died to a smoulder of smoke, above sheeted smoking embers. As it died, Major Baker let his hand slip from Joe's shoulder, and said with a deep breath, "Son, that was touch and go—a mighty near thing. Don't forget it. Don't forget either that fore-handed trouble is safe Suppose we had not fired against the trouble. wind first?"

"O! I reckon we would have been fightin' fire until it rained," Joe said. "That would have been — let's see! — one, two, three days. The moon's got a ring round her with just three stars inside it."

Though the clouded moon filled the world with gray shining, it seemed to the firewatchers black darkness came with the dying of the flames. The field had burned over in ten minutes. It would have taken half an hour by daylight, with clouds and the same wind. In still sunshine it would have taken half a day, yet been nothing like so well done. Why, is among the curious small secrets of nature's processes the wise men have yet to find out. 'The cave-dwellers no doubt knew that sunshine had a trick of making fire burn languidly, yet their remote descendants have not gone much beyond the fact.

Joe went home over the burned ground, stepping out sturdily at his father's side. The earth was still warm - warm enough to pene-It was light too trate thick boot soles. so light in places they sank shoe-mouth deep, and in other places the sedge tussocks came up for a sound kick. Given its own time, its own way, and freedom from trampling hoofs, sedge loosens land marvelously, and makes it rich. The drawback is, it takes so much time. Unlike clover it neither feeds on the air nor breeds enriching spores. Its work is mechanical the roots creep, the stalks shelter, the leaves droop as a mulch to entangle air and moisture, which are the primal soil-solvents. By their help the mineral particles break down, as, on a bigger scale, stone and pebble broke down to sand and clay. Then the rotting mulch adds humus - the leaf mould in which all growing things delight. Further, the mulch catches and saves the field-drift, leaves, weed-stems, dead insects, every sort of flotsam, for the strengthening of the land. Best of all, it keeps the soil itself receptive. How important that is, may be gathered from the fact that the richest manure is almost worthless if left to dry and leach out on hard ground in sunshine and rain. There have been men, indeed, who declared that air was the one all-sufficient fertilizer for any land in fair condition. They advocated cultivating the whole surface but taking crops from but half of it, planting strips of it alternately upon alternate years. Sedge works along their lines, but makes haste much more slowly.

Rotting is only slow combustion. Decay or fire, the end alike is ashes. Ashes quicken and hearten whatever ground they fall on. Joe was glad he could kick them up in stifling clouds wherever he stepped. He looked over the blackened earth set thick with red winking points, and smiled to think of next year's crop; yet, in almost the same breath, he sighed. Somehow he had loved the tangle better than the smooth home fields. All the wild things were his friends — even the pushing sassafras. He had shot his first rabbit there, and caught his first trapful of birds. It had never been like the crawfishy strip, sombre, savage, thorny, but an elfin solitude, full of tricksy surprises.

There had been a settler's cabin upon one corner of it, and still in the garden spot mint came up every year. Occasionally also there were cornflowers, blue and white and purple, horehound stalks, and deep red single poppies. Sweetbrier persisted too, rooted under the pile of rock that had been the chimney. On beyond there was a plum thicket. The plums were red and yellow, very small, but very plenty, and full of sweet juice. Periodically the thicket was cut down, as were the locust sprouts, but both grew up again, only the thriftier for the cutting.

Joe was curious as to whether they would grow now that they had been cut when the sign was right. He rather hoped they would, partly out of friendliness, but more for the

confounding of old man Shack.

## The Hog

## Chapter IV



DE had been taught chivalry by precept and example, also to understand that chivalry is, in essence, but the consideration of strength for weakness. "A gentleman owed himself courtesy toward every-

body," said his father, "but was doubly bound to be courteous to women, little children, old men, and men poorer than himself." Thus the lad's dislike of old man Shack was not grounded in the fact of the old man's being a poor white. A man could not help it no matter what he was born, but he could help accepting the poor white condition, after he had grown up to a man's strength, and a man's chance.

Old man Shack stood six foot two, barefoot, was a jack-of-all-trades, and could beat any man in the county, black or white, at a log-

rolling, a chopping frolic, cradling wheat, wrestling, or pitching horseshoes. He was not really old—a little under forty; but he had married at sixteen, and had twin sons rising twenty, so it was necessary in some way to distinguish him. Beyond that, his family never called him anything else. When he was in the humor for boasting, he said he had moved seventeen times since his wedding day, had brought up twelve children, and was a sow and pigs and three yearlings better off than when he married.

He showed a sort of cynical pride in his shiftlessness, and cynical contempt for good repute. He let all his stock run out on the range, even when he had a pasture handy. Joe had never quite got over hearing him say with a grin: "I woon't have no mark but the rogue's mark - both ears cut off close to the head." Marks, properly earmarks, are important things on a farm. Law takes cognizance of them - it is actionable to change or counterfeit an established mark. Considering that the beasts of the field have but two ears, the variety possible in marks is astounding. Their primary elements, the crop, half-crop, slit, hole, swallow-fork, under-bit, and over-bit, may be used, singly, or together, in above five hundred ways as slit-and-crop, slit-and-under-bit, slit-andover-bit, slit right, crop left, both ears slit, slit and swallow-fork, swallow-fork, slit and hole. Merciful men mark as lightly as possible; suspicious ones cut ears to rags and tatters. In a question of ownership there is no going behind an authentic mark well healed. Likewise a mark bloody, and visibly tampered with, is convincing proof of theft.

It is not easy to tamper with marks. The cuts toughen so in healing they almost turn the edge of the later knife. Taking off the whole ear is quickest and safest. If old man Shack did not really do it, he wanted his neighbors to think he was quite bold enough and bad enough for such work. It was of a piece with his vaporings as to what he might be or do if he "was not so cussed lazy." He had, according to himself, potentialities for anything betwixt robbing a train and making a million dollars. Joe did not believe the half of that, but he did believe, if the old man chose to work only half as industriously as he chose to idle, he could not help but be much better off.

The Baker mark, a crop in the right, underbit in the left, ran back through the pioneering Baker and certain Carolina planters to the original English emigrants, two brothers from the borders of the New Forest. They were yeomen, also young men — which yeomen

originally signified. According to an old inventory, they brought the mark with them, upon the ears of some pigs, white with a black list over the loins. No doubt the pigs were both marked and listed like others that, before coming out, the Bakers had sent feeding in the New Forest through the time of pannage.

Pannage ran for six weeks from the first of September. For every hog feeding through it, a shilling was paid to the king's majesty, through the hand of his verdurer. likely the king's majesty never touched a groat of the shilling, but his liege subjects revelled in rashers of beech-nut bacon. Joe liked to think of that old time - the hogs going out in charge of the village herd, to range and riot through the woodland, and sleep at night in the sweet-smelling new-fallen leaves. He had three books about the royal forests. them was old - so old it was full of puzzling long esses, which half the time he took at first for efs. They were the books of books for winter nights and rainy Sundays. sure he would have read them over and over, and loved them quite as he did, even if no traditions had come down to give a personal accent to the forest history.

Something else had come down. Atavism, the tendency to throw back, is strong in all domestic animals. The throwing back is

nearly always to remote ancestors rather than near ones. Each and several, the Bakers had crossed all their stock judiciously, but every year or two, among the litters at White Oaks, there was a white pig with a broad black list over the loins. Commonly the listed pigs had also a black spot back of the ears, or over the eyes. A pig's coat is colored in skin as well as hair. In the list, the black skin was bigger than the black hair, so there was a band of silver-gray all around — white hairs with black skin showing through.

It was not for lack of pasture that Major Baker let his hogs run in the flat-woods toward the end of summer. He knew the running out made them healthier and more vigorous. They found in the woods a mysterious tonic, a root it might be, or a seed, or some quality of the earth itself. They went in and out at pleasure, through a slip-gap in the back fence, and were called and fed beside the gap every morning. The most part came to the call, but nobody worried over absentees until they had been three days unseen. Hogs have a curious sense of time - these knew to a minute when their salt and ashes were due upon Wednesday and Saturday mornings. A hog that did not come up then, might reasonably be set down as either sick, stolen, or strayed.

In general, straying was not so easy. Hogs of different pastures might range the woods together, feeding and grunting amicably, even seeming to gossip, in cheerful piggish fashion, vet when they took the path home, woe to him who tried to go except where he belonged. At night the going was in single file, one trotting right on the heels of another, and all squealing as they went. At morning, in answer to the call, there was a rush pell mell as fast as they could leg it, tumbling and squealing hungrily all the way. Either at night or morning a stray had to fight for his place. If he conquered a place then and there, all well. If not, he had to lag a long way behind, hang hungrily about, and endure the pangs of Tantalus until his enemies were too busy eating to have a thought for him.

Still, there were exceptions. In every drove, there are now and then individuals who delight to entice in outlanders. Sometimes they choose fine, fat, well-appearing, young hogs, very well worth stealing. Oftener choice falls upon a leggy, slouchy animal, with long coarse bristles, and a very keen nose. All day long the enticer ranges and roots beside him, rubbing shoulders with him, putting nose to nose, and sniffing amicably, scratching him behind the forearm, and, when he wallows, along the backbone. Then when it is time to go home,

if the victim hangs back in fear, or the other members of the drove grunt out threats, the enticer falls instantly to rooting, but roots so as to keep the victim headed the way he should not go. After the drove is running well in line there may be a pretty bit of by-play - the victim trying to lay a homeward course, and the other blocking his way. Often the two of them stand for ten minutes face to face, twiddling noses one around the other as you might twiddle fingers. The chances are that, next morning, that particular drove will boast a stray inmate, or the morning after at the Once the stray is well wonted, the captor takes no notice of him, but goes after another. The passion for conquest indeed seems to grow by what it feeds on.

Only the fattening hogs ever thus ran out. The sows and pigs were kept in the woods pasture, beside the creek, where they had clear water to drink and wallow in, and leaves a plenty for their beds. Straw beds or litter, made them mangy — even grass and sedge, though wholesome enough, did not compare with leaves. The sows did not sleep all together, cross-and-pile, as did the fattening hogs. Just before farrowing each made herself a new bed, choosing for it the most sheltered and sequestered spot she could find.

Hogs are artistic bed-makers. In the woods

the first thing is to gnaw off, or pull up, the low bushes over a space several yards across; next the leaves are rooted up, and inward, in a ring. Then the bed-makers get inside the ring, put their fore legs over the heaped leaves, and deftly draw them back, until the ring narrows to a pyramid. A suckling sow plumps down right in the middle of her bed, whirls round and round until she has snugly hollowed a cup big enough to lie in, then calls in her litter, bestows them beside and slightly underneath her, and with her nose tosses leaves lightly over them, as well as over her own back and shoulders. When at last she lies down she is invisible, under a leaf coverlet six inches thick. Until she begins to think of weaning her pigs, she fights everything else away from the bed. In the hottest summer weather she makes for herself and her children a bed of fresh clean earth, light and dry, but not dusty. She will wallow all day in mud, and keep her piggies beside her, but will not sleep in it.

Hogs are wonderfully sensitive to weather influences. They squeal and run restlessly about hours in advance of a storm. They have also some mysterious faculty which warns of coming cold, hardly waiting to feed sometimes before they rush to work, thickening their beds, and heaping them anew. They

bite down leafy bushes and run almost incredible distances, holding them in their mouths. In making beds of sedge they ingeniously avoid the tussocks, by planting their fore feet firmly upon the roots, then gathering a mouthful of stalks, and gnawing and snatching them off. But they are so lazy they will cling to the same bed year after year, if permitted, only now and then bringing in a little fresh bedstuff. A drove-bed is always big and broad, but if fifty sleep in it, the aim of each individual pig is always to lie in the middle with all the rest for cover. As a result, upon nights when the cold strengthens greatly, there is not much rest in it, but a continuous hurly-burly of crowding and squealing. After deep snows, or in days of cold rain, hogs keep in the bed until driven out by hunger. Young pigs creep out of it at three days old, if the weather is fine. If it is cold and stormy, they lie inside a week.

Before they come out, it is easy to tell how many the sow is suckling. Like the most of litter-borne animals, pigs keep to the teat they first began to suck. After a day or two teats that do not suckle grow dry and small—thus by the teats in milk, you may know the number of pigs. A sow always lies down to suckle, though if the pigs are hungry they are apt to catch the teats, and squeal shrill complaints

before she lies down, maybe while she is feeding. As she drops, she gives a little grunting call. If the pigs are in the bed, they rush out in answer to it, and fall all over each other, as they range themselves along her side. Each lays hold upon the teat that comes handiest, but almost instantly lets go, and burrows under the pig next, in search of his proper fountain. The search is so vigorous, for a minute the litter looks to be boiling all over. But when at last the cunning creatures are properly placed there is nowhere a better picture of mother care and infantile content.

. Pigs learn to nip tender green stuff before they are two weeks old. At six they can crack shelled corn cleverly; but White Oaks pigs did not wait so long for grain. They had a pen inside the woods pasture, with a gap too low for the mothers to go through. There were troughs inside for mush and milk. The saucy rascals throve as mightily as they ate. They knew whoever fed them as far as they could see, and always ran to meet him and followed him to the pen, squealing in chorus. If he stopped to rest, the squeals grew agonizing — the squealers meantime huddling thicker, and standing upon their hind feet, with the fore feet resting against him. The sows followed too, though not quite so impetuously. While the pigs ate, their mothers ran round the pen, snuffing and grunting complaints, though they were fed twice a day, not to name the pasture. No hog of any sort ever saw eating going on without wanting a share. What, then, could one expect of suckling mothers?

Bold, gluttonous fellows among the pigs, climbed bodily into the low troughs, and lay there swilling. Joe laughed to see that they chose always to lie in the low ends where the mush and milk was deepest. Often it came half way up their sleek sides. He fancied they lay down over as much of it as possible to keep it from the rest. He had caught his father's knack of picking up a pig by the tail and swinging him gently back and forth to judge his weight and growth. So held, a pig does not squeal, though he opens his mouth, as though he would like to do it. Pig-thieves take advantage of the fact. They shell corn all around their feet, then when the pigs are eating seize upon a fat one, lift him up, and stun him by a fist-blow between the eyes.

And thus they get safe away. Ear or leghold makes a pig squeal loudly, no matter how tame he may be. A curious thing is that sows or hogs of any sort, which pay no attention whatever to the squealing for food, start upon the dead run, bristling, giving out angry guttural roars, and gnashing their tusks until

foam flies the minute they hear a squeal of distress. Yet to human ears one squeal is the same as the other. Hogs know the difference, as they know the difference in calls. Three men may be calling outside droves at once, and each call be audible to all the droves, yet there are no mistakes. The animals are never in doubt as to where they belong.

The gregarious instinct of defense is still lively among hogs. A drove of all sizes will upon the approach of a dog, a fox, or, if half wild, a man, form itself into a ring, with the pigs and young hogs in the middle, the strong tuskers outside, and stand heads out, gnashing and bristling, until the marauder slinks out of sight. If instead of slinking he ventures upon attack, the ring roars louder than ever, and stretches to meet him, still keeping formation, though it may be so elongated the two lines almost touch.

A wise man will not rashly invite the ring's attack, neither will a wise dog. A boar three years old has tusks often several inches long, very much curved, and sharp as a knife. Sows of full age are nearly as formidable — sometimes indeed they are the fiercest fighters of the drove, ripping and rending whatever they can reach. An angry hog is a wicked antagonist, — bloodshot, foaming, with sinews tense as cords. Solitary he can beat off half a dozen

hounds as they come at him. In the ring, where there is no chance of escaping his tusks, he is well nigh invincible. Experienced dogs never venture upon a direct charge. They halt a little way off, leaping and howling angrily. Then, when the quarry makes his rush, the aim is to leap aside, and, as he passes, wheel, and nip him by the ear. A game dog with good ear-hold may worry down his hog, but the chances are against it. Once his blood is well up, a boar will commonly kill or disable half a dozen dogs before giving up the fight.

When a pig did not thrive properly, or a hog looked pinched and rough, Major Baker knew something was wrong with the devilmarks. The marks are rows of tiny indentations, no bigger than small peas, running down the inside of each fore leg. Countryside superstition has it that the marks commemorate the devils which went into the herd of swine, and made the swine rush violently down into the However that may be, nobody quite understands what end they serve. They are hairless, and without secretion of any sort, yet if they get full of extraneous matter the hog shows it very soon. He eats as well as ever, and roots actively, but does no credit to his keeping until the marks are cleared.

Hogs have sensitive palates. Joe thought

nobody could doubt that, after seeing them, as he did, fight over the ripe horse-apples and sweetings, the while utterly neglecting the sour winter windfalls, although they were sound and well-colored. He saw them, too, when they were cloyed with juicy fruit and melons, rush at the piles of seed from the peachdrving, and stand for half an hour craunching up the hard shells, and dropping them out of their mouths, yet keeping in the rich almondflavored kernels. They could also distinguish between ripe melons and sickly ones from dead But none of all those things were so odd as their preference for sulphur water. There was a sulphur spring in the woods pasture, close on the edge of the creek. The sows would come racing to the creek, with a string of pigs behind, wade across, sometimes dropping to wallow if the day was very warm, then come on to the spring which was nauseously strong, and drink and drink until they almost drained the little rock basin. The taste for sulphur water, was, he at last decided, an acquired one. The Berkshire gilt, bought a long way off, sniffed it when she saw the others drinking, but turned up her nose at it, and waddled on to the creek.

The fattening hogs were put up at White Oaks early in September. They were not really penned until cold weather came. Major

Baker fed down standing corn in the creek bottoms. The corn was planted in March, laid by in early June, and sowed with peas as it was laid by. The peas, vine, and pod, were worth a third as much as the corn for feeding, then there was the benefit to land. The hogs ate the peas very nearly cleanthey also rooted and ravaged out dormant in its in the soil. It was so light and black, all so s of creeping things infested it. When old man Shack scouted what he called the sinful waste o' good bread-corn - with mast enough a-comin' to fatten hogs by the rigimint, Major Baker only smiled and said his hogs paid for all the corn they ate, in cut-worms, budworms, and wire-worms.

Old man Shack generally had hogs a-plenty, but never fattened them — he let the mast do it for him. By the middle of October the flat-woods were full of acorns — unless, as sometimes happened, the mast had not hit. Such years the old man sold his hogs and bought fat bacon of his neighbors. You did n't never ketch him, he said, a-ploughin' and a-sweatin' to raise corn to make meat for no twelve children, an' wife an' dogs throwed in. He would n't do it — no tetch! No sir-ee Bob! He'd swap a passel er hogs fer all the meat they'd fetch — ef they did n't fetch enough — why! his folks would jest

have to look to either the Lord er the county for more.

Beech-mast makes the finest pork in the world - not quite so firm as grain-fed meat, but sweeter and more delicate. Sweet mast - that is to say, butternuts, small hickorynuts, chestnuts, hazelnuts, white oak and post oak acorns, give good, fairly firm fat, and an agreeable game flavor. Bitter mast pignuts, buckeyes, red-oak acorns, and those of the Spanish oak, the black-jack, wateroak, turkey oak, and over-cup oak, make flesh that is oily, somewhat rank, slightly bitter, with yellow fat instead of white. Still bushel for bushel, it makes more fat than any except pure beech-mast. The yield is also more plenty, and very much more certain. The flat-woods mast was nearly all bitter, but old man Shack was rather glad of it. He called hogs every morning, and gave them grudging handfuls of shattered corn - just enough, as he explained, to ha'nt 'em home against killin' time. Hogs fed even scantily at regular intervals, will come to the feeding-place without calling at the feeding time, often persisting for weeks after feeding has ceased.

The instinct is turned to account against wild hogs. With a wide stretch of woods, and mast in plenty, there are always adventurous individuals to stray into the wooded

depths, establish themselves, and breed there year after year. Such animals are truly wild, running away like deer at the least alarm, and, like deer, able to wind the hunter. They run when they can, and fight when they must. The cracking of a dead branch beneath the foot, or a single incautious yelp from a dog, sends them off like a shot, so long as the danger is unseen. It is when it comes in plain sight they begin to bristle and, in early winter when they know themselves too fat to run far or fast, make ready for a charge. They feed very early in the morning, and again towards dusk, lying hidden in thickets and beside fallen trees through the daylight, and snug in their beds through the night. No hog, wild or tame, makes a path to his bed, though they make strongly defined ones to their feeding and drinking places. But wild hogs cannot feed without leaving strong sign — the circles and spirals rooted in the fallen leaves in search of mast. All about the rooted circles there will be tracks. By the depth of these tracks the hunter judges the size and fatness of the game. He seeks out some very quiet place, where tracks are plenty, and baits it - that is, strews it thickly with shelled corn and little lumps of salt. Then he watches until the bait has been eaten, and renews it, judging as near as he can whether it was eaten at night or morning. It may take a dozen baitings to decide the point—but once it is decided, the game is in his own hands. He goes beforehand, climbs a tree, and waits, gun in hand. A good shot may knock over two or three hogs before they get out of range. And he has only to keep up the baiting and lying in wait to bag the whole drove.

That is wild-hog hunting for profit. It is much better sport to track them in light snow, and run them down with dogs. Unless the hunters are well mounted, and the woods open, they have their trouble for their pains. Wild hogs swiftly approximate the razor-back or wind-splitter type - lean, longnosed, long-legged, tremendously muscled. Even when fattest they creep or slip through incredibly small spaces, and can double like rabbits. Besides, they know every nook and corner and saving hollow of the woods, and are wily enough to lie snug, and let the chase go by almost over their heads. Running over snow they leave but a faint scent, and one that the dogs fail to pick up after an hour or so of running. They can so far outrun most dogs, they can well afford to stop and catch breath whenever they find themselves tiring. When they come to the end of endurance, they turn at bay.

The boars fight fiercely among themselves. It is very rare to kill a boar even two years old with tusks unbroken. They seldom kill each other in these fights, but the vanquished has a cheerful habit of running away and venting his anger upon the trunk of a tree. He rears, and gashes the bark of it as high as he can reach. If he strikes a knot, the gashing may cost him a tusk. Woodsmen judge of his size by the height of these gashes. When they find gashes breast-high they know it is time to go wild-hog hunting. A big savage boar can go through or over any fence ever built, and, beside being the worst ravager of growing crops, may kill a flock of lambs, rip up grazing cattle, hamstring a colt or two, and even attack human beings.

## Shooting

## Chapter V



Γ is lawful in Tennessee to shoot over your own land any time in the year, yet the Bakers, father and son, were sportsmen enough to observe religiously all the close seasons. There was none for either rabbits or

squirrels. Indeed it was part of the year's work to shoot Mister Long-Tail — the negro name for the gray squirrel. Squirrels are sad thieves, withal very dainty feeders, and possessed of a decided sweet tooth. Needs must they keep Lent somewhat rigorously, living on buds and bark in early spring when their nut hoards are exhausted, but after the Lenten buds they plunder birds'-nests impartially, suck the eggs as they are laid, and so get through to the time of mulberries and wild strawberries.

They love mulberries much the better — perhaps because they love to stay in trees so

much better than to run along the ground. Sometimes they feed upon the fallen berries, but commonly they do their own picking, crawling supplely along even the slenderest berry-bearing twigs, snatching off a ripe berry, and backing with it to a stouter branch, there to sit upright and devour it. Paws and muzzles grow deeply dyed with the purple juice, as a little later they may be browned by young walnut hulls. Walnut hulls are, however, so thick and full of acrid juice, squirrels leave them untouched unless hazelnuts have blasted, and cornfields are very far off, and very well guarded.

Corn in the milk is a feast to them — hence the necessity of shooting. Were the woods allowed to fill with them, they would destroy acres of corn in a night. They run up the stalks, cling fast to a roasting-ear, deftly strip off half the husk, and gnaw the milky grain, sucking the milk as it drips. Full-fed they drop down and run away, to come back in an hour for another meal. That means the spoiling of a second ear — they do not feed twice in the same place — nor will one squirrel eat the nut another has begun to gnaw, unless he has snatched it and run off with it. Corn is eaten from the time the grain first swells until it is hard — hence an active squirrel colony prove somewhat expensive

neighbors. Major Baker and Joe did not in the least grudge the furry fellows the berries, the nuts, nor even a reasonable share of corn, but they did think it wise to keep the share from becoming unreasonable.

Joe and Patsy often went prospecting for nuts while still everything was green. it happened that more than once they got a chance to watch the squirrels in the hazel bushes, and saw them creep upon the long slender nutted boughs, often bending them almost to the ground, reach out fore paws, draw in the pendant green-frilled nut-clusters, gnaw a hole at the base of each young nut, and suck out the milky kernel. When the last nut was empty, the squirrel dropped down on the ground, and either ran up another stem, seeking new clusters to plunder, or scampered away. he was frightened, the going away was in little niggling leaps, halting between every two or three to curl the long gray plume of tail up along the back. But if he had spied out the eyes watching him, the leaps were prodigious, six feet at the least, and ending at the foot of some big tree, up and around which the leaper whipped in the twinkle of an eye.

Patsy abused the squirrels for being so lazy — their summer nests, she said, were such shackly affairs, of sticks and leafy twigs — then they sometimes made shift with an

abandoned crow's nest, or even a hawk's. That certainly did look thriftless - still there was something to be said on the other side. Commonly Joe said it. The squirrels, he told Patsy, knew it was fun to camp out their leaf-and-stick houses were no more than camps. They did nothing but sleep in them, and that only in chilly or damp weather. They had the whole summer world for home and playground. Why then should they weary themselves to build fine houses? They were industrious enough, even forehanded, in the fall. They did not wait for frost to open the hickory-nut hulls and the chestnut burs, but gnawed them through and carried the nuts to their winter nests, beginning as soon as ever the kernels were hard. They had sense as well as thrift - sense enough not to mix in bitter mast with their sweet stores, but foresight enough to know they might come to need the acorns. And so they buried them, down beside some rememberable tree, and left them against the spring scarcity. He was not quite sure as to the motive of the burying. He knew the bitter acorns got sweet as they began to sprout - not a very tempting sweet, and with still a rough tang under it, but a sweet the squirrels might reasonably prefer to the original flavor. Joe had tried a sprouting acorn himself, to find out if germination

changed the taste as it did that of a walnut. He was uncertain as to whether the squirrels buried them with intent to make them better eating, or whether they had some instinctive knowledge of forestry, and meant thus to help in assuring the perpetuation of the oaks.

Anyway, in winter they were good house-keepers, never eating in the nest if the weather was open, but running off with their nut ration to some convenient higher sunny crotch, whence they might drop the hull without betraying the nest. And if bad weather kept them inside, making them eat and huddle there for maybe a week, as soon as it cleared, they fetched out the accumulated shells, and instead of dropping them just outside, ran all about with them — to the ends of the longest branches upon the home tree, or even across the whole breadth of a neighboring one.

If they did not make visits; they were social—often half a dozen of them played together, chasing each other up and about the highest sunny boughs. Sometimes the play was hideand-seek. One squirrel popped under or around a big limb, out of sight of the rest, and clung motionless there while they seemed to search for him everywhere.

Joe loved to watch them going to drink at the creek. They will not drink muddy water

if there is fair water within a mile. If they came through the tree tops, it was in a line almost as straight as a bird's flight. More commonly they came along the ground, in running leaps, rising upon the haunches every little while to throw the ears back, listen, and look around. Sometimes when dew was heavy, a squirrel stopped to sip beads of it from the edge of a broad leaf. At the waterside they did not sip, but drank deep, bending far out over the water, with tails laid flat and stiff on the ground as though to anchor them. Because of this fine tail, a squirrel is a very poor swimmer. Old hunters declare that when the little animals migrate, as sometimes happens through the failure of mast, they cross rivers by launching upon the water, sticks, bits of bark and chips, to which they cling, keeping their tails above water, and holding them up as sails, until they drift across.

Joe and Patsy inclined to believe the story, although they had never seen such a thing happen. But they had seen the squirrels do other things almost as wonderful — as for example distinguishing between a gun and a fishing pole, or just a plain stick. Sometimes when they went through the woods, with sticks or fishing poles, the squirrels really jeered at them from low boughs, barking their loudest, and even flinging down acorn hulls on their

heads. The bark is grating, long-drawn and full of z-sounds. Between themselves, the gray-coats chirrup faintly, but if they make a noise over sighting an enemy, it is always a bark.

But when Joe had his gun, the gray-coats whisked away, running up very high, or else lying so flat upon top of a stout branch as to be invisible. Toe had a good squirrel gun, long before the epoch of the breech-loader. It had been reckoned a fine weapon when his father was a lad - a long, light double-barrel, too long for bird-shooting, but carrying almost as straight as a rifle up to thirty yards. If the squirrel ran around the tree, it was always Patsy's privilege to "turn" him. She left Joe standing stock-still, finger on trigger, and went noisily to the opposite side, shook bushes there, or swung up and down upon the tip of a low hung bough, or a loop of grapevine. Her aim was to be heard, not seen when the squirrel heard her, he popped cunningly back - then Joe and the double-barrel settled accounts with him.

Patsy could shoot, but she did not care for a gun. "You always have to watch out, if you tote a gun," she said; "I had a heap rather see things." Nobody who walked through the autumn woods could well blame her. The whole world was enchanted then.

Along the creek, beeches, maples, ash trees, scaly-barks, and sycamores ran the whole scale of yellows from pale gold to sturdy russet. Rock-maples were blood-red, dogwoods of a dull purplish crimson, flecked and blotched all over with stars of coral-red berries. gums had leaves of clear crimson set off by sprinkles of frosted blue-black fruit. whole haw family had crumpled their leaves until the stalks showed through, but there was no room for complaint of bareness - the haws were so thick. Only a few of the black haws ripened before frost. The ripe ones had a rich blue bloom, and set off wonderfully the piebald unripe ones round about, where black spots struggled to overcome their pinkish cream.

Some of the red haws were like fairy apples, as big as the end of the thumb, and set singly at the ends of the twigs. But more of them grew in clusters of two or three or five. They were smaller a good deal than the single ones, but like them a sweetish-sour, and so full of seed they were not worth eating. Still they were worth while — they jewelled the trees so royally, glowing ruby-red in sunshine against the sober tangle of leaves and stems and thorns. But they were not quite so much like jewels, nor anything like so good, as the little red haws which grew in clusters,

like currants, and had just a tiny seed in the middle of their sweet pulp.

But for beauty, no haw that ever bloomed can compare with spicewood berries, or those of the strawberry bush. Both are waterside growths, somewhat uncanny, and superstitiously held to possess magic properties. The strawberry bush sometimes grows to be a small tree. Spicewood is always a shrub. The leaves of it are coarse, both in shape and fiber - so coarse they seem excrescences upon the slender, graceful twigs, so round, smooth, and brown, with tiny white freckles all over the brown. There is no smell to either bloom or leaf, but the wood itself is delicately fragrant. It is a subtle scent, hinting of sandalwood, and camphor and sassafras. The blossoms, which are vellow and fringed like knops of spun sunshine, are stemless and come out early, before the leaf-buds start, slipping out at the joints of last year's twigs. About one in three comes to fruit. The leaves fall early though they are so laggard in coming out. Any time after September the spicewood thicket stands a netted blur of clean brown tensile stems, beset or rather inlaid with translucent fairy ovals of clear royal scarlet.

It is bad luck to break the spicewood in blossom, but whipping the water with a branch

full of berries gives you excellent good luck in catching fish. At least old man Shack said so - the old man was a welling fountain of signs and superstitions. It is likely the poor whites have a gypsy strain somewhere in their pedigree. They are nearly as clannish as gypsies — which in part accounts for their evolution from the rags and tatters of early immigration. The old man said he could find water underground by the dipping of a forked hazel or willow twig held in both hands. He said also if he dared cut a forked twig of strawberry bush and walk with it, he could find hidden treasure, all round about. But he was afraid to try it - unless the twig was cut by a left-handed man when the moon and the sign both were just right, though the rod would find right enough, the one who carried it to its finding would die inside half a year.

Spicewood and the strawberry bush have only beauty in common. Strawberry bush twigs are green; the stem, when it reaches tree size, is a soft pale-russet. It grows very straight, branches almost at right angles, and has the primmest of oval leaves coming out in exact pairs. The leaves turn a mottled greenish brown before the berries ripen. The berries proper are small and shining. They hang like coral drops at the ends of short

white filaments. Sometimes there is but one in a place, sometimes half a dozen. But they do not make the glory of the tree. Where the filaments start, there are broad waxen bracts, of the richest coral-pink, curved and voluted like the petals of a flower. They grow so lavishly too. Every little smooth green twig-end wears its flittering pink and scarlet. One might fancy the shrub, out of love with May, had flouted that month with small greeny-white inconspicuous blossoms, and saved strength and beauty to do more than blossom against St. Martin's summer.

Maples throw down their winged seed long before leaf-fall—thus giving them a better chance to grow. The ash tree has the same habit. It is interesting to note that the seed is shaped like a fairy oar, since ashen blades are the things for rowing. Sassafras keeps its pungent bright black berries until all the leaves are down, although, as in the case of the persimmon, the keeping varies according to situation, and somewhat according to variety. The books may not recognize the fact, but there are many varieties of sassafras—as indeed there must be of every seed-grown tree.

Joe laughed at the thought of Captain John Smith sailing home to England with cargoes of sassafras root in the hold of every ship. Still he loved the smell of sassafras, root and branch, especially when burning. Sassafrasroot bark was good to eat, if you did not try to eat too much of it, full of a burning aromatic bitter, wonderfully staying to the stomach when you were cold and hungry. Now and again also he chewed the budded tips of the stalks. When the buds had swelled to very young leaves, he sometimes ate the leaves outright. He always gathered handfuls of them for his mother to dry. Dried they were good to put in winter soup, though not quite so good as the fresh tips which flavored gumbo in summer. It had to be the merest flavor - if it amounted to a taste, the gumbo was spoiled. It was spoiled anyway if the tips had turned green before they were broken. The time to gather them was while they were brownish red, and so tender a touch bruised them.

Sassafras is aromatic all through—wood, bark, leaves and fruit. It rarely grows into a big tree, no matter how rich the soil. A trunk three feet through is almost phenomenal. It cannot fight shade, so does not dispute ground with forest trees. Around the edges of a rich low-lying open glade, it often grows very tall, running up maybe fifty feet, with trunks a foot through. The sunny edge of a clearing is indeed its favorite seat. In the fall when the leaves are all of the richest golden-yellow, you may look along field margins, and judge fairly

how long they have been cleared, by the height and strength of the sassafras torches flaming in the woodland wall.

There are wonderful differences in fallen leaves. Joe did not know whether it were cause or effect - the earth along the creek, and in the hickory flats upland, being so much lighter, blacker, and livelier than the soil of the flatwoods. But he knew the leaves from the nut trees, the ashes, and maples, crisped and lay much lighter and higher than those of the oaks. The hickory flats late in October looked as though they had been shaped of sunshine and beaten gold. Tall blackish-gray trunks ran up slim and straight to lose themselves in clouds of gold foil. They had few boughs below the top — there the branches were thick enough and leafy enough to spare a carpet for the earth yet still ruffle it grandly in cloth of gold. The carpet lay knee-deep, richly rustling, and upon damp mornings or in the heat of noon, gave out a fine elusive breath too subtle to be called perfume.

It was a delight to roll on the carpet or burrow beneath it for nuts. The leaves felt so clean and springy until rains had beaten them down. They packed easily, and took but a winter to dissolve into their original elements and become leaf-mold. Oak leaves did not crisp — they scarcely even drew in their edges.

Hence they fell and lay flat one upon another, shingling the earth as it were, and shedding rain for hours. You might find dry ones at the bottom of a deep drift after an all-day rain. Beyond that they were of much stouter fiber. The yellow leaves crisped and crumbled to powder in a month if they stayed dry. Oak leaves varnished all over never crumbled, and took three years to rot, unless they were packed wet and covered. Joe wondered sometimes if the oaks did not grudge the light ground to the trees of better fruit, or if they were content to rest on use.

He wondered too how the ash, which is so great a robber of the soil, ever came to be known as the farmer's tree. To his thinking it was rather the lumberman's tree, for, though it did not grow so big as some of the rest, the wood was so tough and springy it was fit for many special uses. His mother had, he knew, insisted upon having ashen floors all through the new wing to match the rest of the house. In summer the floors were all bare and the ash showed a clean beautiful grain after the weekly scrubbing. Then it split so straight and freely it was fine for plantation carpentry - making a hoe-handle, or replacing one accidentally broken upon a plough. Still he did not like the tree, as he did some of the rest. It might be only fancy or coincidence, but he was certain in his own mind he never had any luck fishing if he chanced to wet his line first where ash roots ran into the water.

The oaks, and even the flat-woods, had a charm all their own. Things grew in the flat-woods not to be found anywhere else. Holly-bushes for example, not plentifully, but enough of them to make looking for them hopeful work. Holly, according to tradition, sprang up first in the footprints of our Saviour -hence the beasts of the field reverence it and never Hence too its use at Christmas. feed on it. Everybody knows it is bad luck to take down Christmas holly before Old Christmas Day, otherwise Twelfth Night. Joe had read in his forest books how complaints in the swainmote, the forest court, were sworn to, upon a holly wand, instead of a Bible. Dan had told him further weird tales of the holly's power: - how if you walked under it after dark, you would "dream true" - and in general dream very ill - and what dangers waited upon digging it up, or even around it. As for cutting one down - that was not to be thought of, if you did not care to be conjured for life. And when you went hollying for Christmas, something bad would surely happen to you, if you failed to bow and say "Thank you" to each tree you plundered.

Indian pipe also grew in the oak woods -

so did Indian turnip, which the black people call "devil-in-a-pulpit." Patsy bore a conscience toward most wild flowers - she did not care to pick them only to see them wither in her hand, but the Indian pipe tempted her. She did not break the uncanny wax-white things, but lifted them bodily with a ball of earth underneath, took them home, and set them in a platter, with moss all around, and vellow leaves and gay red berries flecking the green of it. She chose the Indian turnip's glowing cones oftener than any other. They were not the prettiest, she said - indeed, the big huddled lump of them was sometimes awkward, but they held color so well, glowing for weeks as they lay on the ground after the stalk had faded. More than that, nothing ever fed on them. Patsy did not taste them - she had promised her mother never to taste any of the wild things she picked — but she fancied the berries might be as pungent and peppery as the root, which blisters the mouth and puckers it in spite of all you can do.

Sometimes with delicate caution she shook off the earth and tried to see roots to the Indian pipe. If there were roots they were invisible or else suckers at the base of the stems. Patsy made up her mind that the plant was an underground parasite, feeding upon oak roots, as mistletoe feeds upon the branches. This was

because she never found it except underneath a robust oak, pushing up through matted leaves and seeming to be anchored to a feeding oak root two or three inches below ground. Uncanny as it was, she loved it, almost better than the real sweet-smelling flowers, - loved to watch the white stalks push up, the fairy pipe shape itself at the end of them, unfold, and gradually bend down, down, so rain might not wash away its pollen and make it unfruitful. When every stalk had blossomed — sometimes there were a dozen — the clump died, pipes as well as stems withering to dust. But Patsv knew there was seed somewhere in the dust. She could not see it, of course - but if there was not, how should there be Indian pipes next year, and all the years?

## Quail and Partridge

## Chapter VI



F Joe had been called to choose the real merry month, he would have pitched upon November, yet not wholly because of the hunting. October brought the tragedy of frost — it was pitiful to see all the green things die,

even if the frost did paint the leaves so royally and bring so many things to full ripeness. Maybe he was fanciful, but it seemed to him the earth shrank from the frost, and grew pinched in the first cold, as he himself shrank and grew pinched. When three nights of frost had ushered in a warm rainy week, he thought the fields rejoiced and when the clouds broke up into low clinging mists, he was sure the trees sang together a low jubilant song.

They ruffled lightly as they sang — thus there was a plashing accompaniment — the noise of the big mist drops pattering down.

The mist drops are clear as dew, and heavier than rain. They distil from the woolly whiteness, gathering all along boughs and branches. Sometimes just after sunrise a quick wind rolls away the white wool, and then you see the trees diamonded all over, flashing back the low red shining. It is a royal spectacle, especially if you chance to look at the sun through the bediamonded boughs, and thus have the red shining turned into a flood of rainbows. The big drops act as prisms to bring out the primary colors.

It took a warm stealing south wind thus to roll back the mists. A cold westerly or northerly breeze blew them up into the sky, and shaped them into flying rain-scud. If the winds did the work quick enough there was a shower, and a morning rainbow in the sky. Of rainbows at morning all good husbandmen, especially shepherds, take warning, since they are infallible signs of foul weather. Falling weather, say the country folk. Scientific ones might say almost the same, since it is the falling barometer which gives notice of coming disturbances.

When Joe went out bird-hunting he had no need of either rainbows or barometer to tell him what weather impended. Birds for hunting in Tennessee are quail, there called partridge, as the true partridge is known as pheasant. Pheasants were rare round about White Oaks. Joe had seen just four of them. He wished they were plentier. Two of those he had seen were in a game-bag, but the others he had watched, strutting and drumming upon a log in the woods, and at last, flinging furiously at each other, fighting as desperately as gamecocks, and in much the same fashion. were cock-birds. His father had said their mates must have been looking on, concealed in the brush a little way off. Major Baker had in his boyhood often watched such encounters. Then there were pheasants in every deep and wide stretch of woodland. It was the clearing, more than hunting, that had made them so few and shy. They feed and breed, and haunt in remote thickets, virgin of human footsteps, and, though hatched in broods, do not keep together much after they are half-grown. The broods are very much smaller than those of quail, rarely more than nine, and commonly under seven. The nest is a hollow in the ground, under thick thorny cover. The young run swiftly as soon as hatched, and can disappear in the very lightest cover, their little gray-brown downy bodies never showing against leafy earth. At a week old they have wing feathers strong enough to help them to a perch amid low bushes. The mother bird takes them there, and goes higher and higher as they

grow older. Thus she puts them out of reach of foxes, though she brings them within the range of owls. Still, as she is wise enough to roost for the most part in viny tangles, the owls carry off but few. Owls must strike flying to strike with effect.

A cock-pheasant drumming is a figure of pride. How he drums nobody quite understands. He can make the sound standing on the ground, though he commonly stands upon a fallen tree, and prefers to drum on a trunk bare of bark. He spreads his tail fan-wise, after the manner of a peacock, raises his ruff stiffly behind and around his head, lets his wings drop, and struts, swelling his breast, preening, stretching his neck, and looking upon every side. You can hear the tips of the wing-quills draw hard against the tree trunk, as the bird wheels slowly about. He seems to listen intently. All at once the wings begin to move, so swiftly the eye cannot follow them. They do not seem to strike either the bird's body or the log underneath, vet all about there sounds a curious vibrant drumming, almost metallic, as loud many yards off as close at hand. After a minute it stops short, to begin again and continue longer. Between drummings the drummer walks back and forth with his head aside, listening toward every point of the compass.

When Joe chanced upon his pheasants only one was in sight and drumming. The log was a big white-oak, wind-felled across a little glade walled in with hazel bushes. was herb-gathering - looking, in fact, for yellow puccoon root. It was early March and he knew the plant had not peeped above ground, except in the richest, most sheltered, woodsy places. He had left his gun out at the edge of the hazel thicket, and was crawling through it upon hands and knees, or he would never have got within eye-shot of the feathered gladiators. Pheasants are the wariest of all game birds, running at the crackling of a dead twig, and flying upon the least stir. Negroes believe that they can also smell human beings. Notwithstanding, there are traditions of battling birds seized with the bare hands.

Joe had no such luck, though he waited breathlessly the event of the duel. He knew almost at once it was to be a duel—he did not hear answering drumming, but saw the pheasant on the white-oak log swell till his breast was almost on top, and his ruffed neck lay upon his back. The bird had heard something too fine for the boy's ear. He was not surprised when the second bird whirred out of the woods, like a cannon ball, half-circled as he flew, and settled upon the

log five feet from the drummer. The two eyed each other for perhaps a minute, then both began to drum at once. Still drumming they moved toward each other. When they were two feet apart, the wings grew rigid, and they hurled themselves furiously against each other. The shock of impact sent them down upon the leaves, there to tumble about pecking, clawing, striking with the wings, each aiming to reach his adversary's eyes. Joe knew that, because both the dead birds he had seen had lost an eve. He had heard old hunters tell also, of finding pheasants wholly blind, starving in the thickets. He did not mean that should be the fate of these fine fellows, so he rushed in upon them and sent them scuttering away, before much harm was done. He wondered if they would not meet again, and fight it out, with their sultanas looking on. From what he had heard, the sultanas, the hen-pheasants, were cruel creatures, delighting to be the cause of battle, and though indifferent to the victor, vengeful even to death upon the vanquished if he ventured later to creep back into company. They were jealous too, often fighting among themselves, until their brown coats were ragged, and their sultan came magisterially to peck and cuff them apart. But there was something to be said for them, he reflected - they had the sole

care of the eggs, and the young broods. As soon as the eggs were laid, the cocks withdrew, generally keeping alone, but sometimes companying in twos or threes. All through the pleasant fall weather, as became bachelors of consequence, they fed high, on grapes, and wild peas, and hazel nuts, and the smaller acorns. Though the first snow did not gather them into flocks, with their deserted families, it did make them feed and range in fairly close neighborhood.

Thus they were not a bit like his weatherwise friends, the partridges, who are easily the most clannish of all the fowls of the air. Ioe made a point of knowing where every partridge nest was -- also of seeing that it came to no harm. If it happened to be in a wheat field, the binder drove around, not over it, even though going around left a yard of standing grain. A sitting partridge would stick to her eggs, and let the machine cut her head off. One merely laying would fly off and of course desert the nest left bare to the broiling sun. The harvest hands made that their excuse for plundering the nests. partridge egg is one of the daintiest morsels in the world. It is pure white, of a very sharp oval, with a strong shell, but so delicate the light shines faintly through as the eggs lie huddled in the nest. When the nest is

ready for brooding there may be from ten to fifty eggs in it. Bob White is a rank Mormon. He is never content with less than two wives, and oftener has three. The wives lay in the same nest, and take turns with their common lord in brooding the eggs, also in feeding and carrying the young after they are hatched.

Grass or standing small grain is the favorite nest-cover, though Bob White often builds in a blackberry thicket, or a clean hedgerow. A hedge overrun with poison ivy or with bindweed he will have none of. Neither will he choose one full of rank herbaceous growth. Whatever the seat, the nest itself is no more than a shallow basin scratched in the light earth. There is no pretence of lining it. Indeed the only attempt at architecture is the bending down of green stalks to overarch it and form a little tunnel leading in to it. The tunnel is faintly curved. A nest disturbed ever so slightly when there are but two or three eggs in it will be at once forsaken; but if it is full to overflowing, the birds keep to it, though people may pass within a yard of it every day. On the whole, Bob White is not averse to human kind. Partridge eggs are sometimes laid in the nests of domestic fowls, especially guinea fowls, which are as prone as themselves to nesting in the fields.

Young partridges look like brown downy chickens seen through the small end of a spyglass. They are hardly bigger than your thumb, but can run fast before their down is dry. They make the faintest little chittering noises, and are wonderfully obedient. At their mother's lightest note of warning, they vanish. Like the young pheasants, they are helped by their color. Indeed, this is true of all earthnesting birds. Their young can with difficulty be distinguished from the ground.

A brood of pheasants makes a bevy, a brood of partridges (quail) a covey. The covey feeds, and haunts, and plays together until the next mating time. It also comes home to roost - seldom sleeping more than a hundred vards from the nest it was hatched in. roosting is upon the ground, huddled as close as possible in a perfect ring, heads out, tails Thus they guard against surprise, or the back-seizure which is the fox's chosen method of attack. They are very light sleepers, stirring at the least noise, and uttering a little shrill cry. At sound of it the covey scatters, and lies snug after running perhaps fifty yards. Nature has given them in protection power to withhold their scent when thus frightened.1

<sup>&</sup>lt;sup>1</sup> The power of withholding scent is a mooted point; but experience in the hunting field convinces the writer of its existence.

Sportsmen do not know whether to be grateful or grieved over the gift. Though it unquestionably helps to make partridges plenty, it also helps to make the truest-nosed dogs do oftentimes very faulty work.

When the danger has passed, the covey begins calling, faint, shrill, plaintive, no matter what the hour of night. It is the same call, only not so loud, as that which assembles the remnant of a covey scattered by a day's shooting. You hear it then, just at dusk. Birds thoroughly frightened keep silent until the whole world is still. However uttered, the assembly call bring the birds together. If there are even half a dozen left of them, they keep together, but if only two or three, they at once join themselves to a covey still strong. There is no recognized leader, yet in feeding, the formation is somewhat that of wild geese in flight. Running, the covey moves in a long slant following the head bird, very much as sheep follow the bell. Their short, stiff pinions are very strong — strong enough for half-mile flights. Still the birds can run easier than they can fly, and very nearly as fast.

In wet weather they will not fly, if running is possible. Hence netting. The partridge net is a purse-net, with little hoops inside to hold it open, and long wings upheld by light wooden sticks. The whole affair is dyed the

color of frosted weeds. It is set among frosted weeds, where partridges are known to use, and commonly upon a day of mist mingled with rain. After it is set, with a light screen of brush over the mouth, the netters ride up and down the field diagonally, coming gradually closer and closer to the net mouth. The partridges see only the trampling hoofs, and run gently a little further off. They run again and yet again, until at last they come to an odd light wall. It is a wing of the net. They run down it, see the convenient cover of bushes, scuttle through it, and run on — to find themselves trapped a little further in.

Netted birds are much the best for either the table or the market, but anybody with a drop of sportsman's blood, holds netting in abhorrence. Some few who practise it salve their consciences by turning out two pairs of each covey netted. Neither nets nor coops were permitted at White Oaks. Joe had built a coop once when he was ten years old a three cornered tobacco-stick coop, with a weighted roof of boards, and a tunnel running down under the side of it, to come up in the He had baited it liberally with wheat and dried peas, strewing the bait all along the tunnel, and in a trail for yards outside. A covey found the trail, fed through the tunnel, and got inside the coop, then lacked the wit to go back the way they had come. Instead they ran round and round, sticking their heads through the cracks, and trying vainly to make their bodies follow the heads, until Joe came to see about them.

Patsy came too. Toe took out his captives one by one, very carefully so as not to hurt them in the least. He meant to tame them, and see if he could not raise whole flocks from them. He passed them over to Patsy, charging her strictly to be also careful. He was on his knees beside the coop. She stood right be-When he got up, with the last hind him. bird in his hand, her hands were empty. Patsy was not over-tenderhearted - she was even then severe upon Joe if he missed a shot. But he saw tears in her eyes, and her lips trembled as she said, trying to speak airily: "I could n't hold the birdies Joe - not after - I felt their little hearts - flutter so. I thought, what if you an' me, an' Pappy, an' — yes — an' mother — were all in a great b-i-g jail — with a giant as high as the sky pickin' us up - an' - an' - we could n't get away - an' knew the old giant meant to - to eat us - an' then - well! I just had to let 'em go."

Joe was a boy, not an angel, so of course he scored Patsy roundly for her breach of trust, but down at the bottom of his heart he was just a little glad she had done what she had done, although he hated to lose the birds. But somehow he never baited the coop any more. Later he came to agree with his father that every hunted thing should have at least a chance for its life, hence that coops had better be left to hungry fellows who wanted birds to eat, and could not buy powder and shot to get them.

Patsy would not go with him bird-hunting. She said the little brown beauties ought not to be shot - they ate up so many weed seed, and destroyed so many insect eggs, they should go scot-free, besides having all the wheat, peas, grapes, cherries, and strawberries they could devour. Her father in large part agreed with her. He would not allow indiscriminate shooting, and always saw to it that the coveys were fed throughout snows, and in severe weather generally. Himself a keen sportsman, he meant his son to grow up likewise. they went out together, and they went very often, Joe was always glad. They shot against each other with the best possible temper, and when, as now and then happened, Joe "wiped Marse Major's eye," that is to say, knocked over a bird Marse Major had missed, it was not Joe who chuckled most, though Marse Major pretended to frown.

If their dogs got up a late covey, the birds not yet grown, they let it go down wind untouched, and went on to find another. Early in the season they liked best to beat the hedgerows. The bachelor birds fed there. The bachelors existed because of the Mormon tendencies. Since the stronger cocks will have so many wives, there are not wives enough to go round. So the very young fellows, and the very old ones, beaten in the struggle, flock together in threes or couples the summer through, skulking away from the lords of families until the young are fairly grown. Then they feed round about the broods, growing gradually bolder and bolder, until they are accepted as covey members in good standing. That happens commonly about the middle of December. From then until mating time, the first of February, the involuntary prodigals stay with the rest.

At mating time it often falls out that the exiles come to their own. Fighting and feeding alone the youngsters have grown stronger than last year's lordly Mormon. Now it is his turn to go to the hedgerows, and lag superfluous there until a shot finds him out, or, disabled in fight, he starves. Cruelty of this sort is among Nature's necessary processes. It is only thus that she can assure the perpetuation of the strongest, and the extinction of those less strong.

Upon sunrises before going hunting, Joe always listened for the feeding calls. By the

sound of them he could foretell the weather. He knew where the coveys slept with reasonable certainty. If they fed in the wheat stubble among young clover, he looked for a mild day, with maybe rain at the end; if they went toward the woods he knew it would be hot and windy; if into the pea fields, or standing corn, there was likelihood of snow. If they sought thick sedge land full of briers and tangle, he might look for very sharp cold. If they lay close, not flushing until the dog and hunter were in the midst of them, or ran along the ground in a swift line with the dogs on a dead point, he was sure of heavy windy rain.

What he loved best was a mild, moist day, not too mild, with a sky overcast, and a little tingling breeze coming out of the southwest. He liked to have the weeds so dry and dead walking through them was easy. He commonly rode from field to field, but did most of his shooting afoot, although his black colt Pipe Stem, stood fire like a veteran. sometimes shot off him, with the gun lying between Pipe Stem's ears. Patsy said he did that only to show off, but Joe did not think it was any great showing off, although he was reasonably proud of the colt's steadiness. No mistake - Pipe Stem was a good fellow. So also was High-Low, the pointer who divided with the colt the first place in Joe's affections.

High-Low had a white coat, satin smooth, with big liver blotches, a deep brawny chest, strong back, good legs and feet, and a perfect He had also a dashing, high-headed way of going. It was beautiful to see him quarter, covering the field in long zigzags, nose to wind, tail up and lightly waving, glancing now and again at the huntsmen, and whipping from one side of them to the other at the mere motion of the hand. Upon the merest taint — as of a running covey fifty yards away - he crept stealthily forward, until he caught a full scent, then at once stood as though carved from stone, often with one foot poised in air, ready for the forward leap. He would wait thus an hour, never moving, though quivering through and through in the eagerness of sport, holding his point until the guns came. When he heard Joe shout "Hie on!" he quivered stronger than ever - with joy this time as he made a plunging leap. Then he came to heel hardly waiting for the word, but before the blurred booming of the guns had done echoing, he was out, retrieving the dead birds.

Sometimes when a covey ran after he came to a point, if the guns were slow coming up, he followed the running quarry, almost crawling himself, and looking shamefaced as who should say: "I know my business — also that

this is dreadfully irregular — but really one cannot let a covey get clean away." High-Low's face indeed was wonderfully expressive. Joe declared the dog winked if you asked him if he could be so ill-bred as to suck eggs, and that he looked a scolding if, with three guns out, he put up a covey and did not have at least four birds to retrieve. However that may have been, it is a fact that once, when a city visitor took High-Low out and persistently missed every bird that got up, after two hours the dog deliberately went home, crept under the porch, and lay hidden there until he saw the city man go away next morning.

Joe shot always to make a clean kill, or a clean miss. He hated above everything to wing a bird, and maybe lose it. High-Low rejoiced to have them winged. No matter how fast and far they ran, he ran after, caught them, and brought them to Joe, without rumpling even a feather. Unless he followed them by the scent of the blood, Joe could not tell how he did it. Unharmed birds he overran - putting them up sometimes right under his feet. Major Baker inclined to believe that the shock of the wound made the winged bird unable to withhold its scent. A bird badly hurt Joe always killed at once. Those merely wing-tipped, he often took home to Patsy, who fed and coddled and healed them, and sometimes made them so tame they would come up all winter to feed with the chickens, though

they always ran away in the spring.

It was in bringing such birds home that Joe found out another curious trick of theirs. Some of them fell as though dead, and lay limp and flaccid so long as he held them fast. But if he walked or rode with the seemingly dead bird thrust loosely in his pocket or lying upon his open palm, the minute he came close to thick cover the dead came to life — there was a flutter, a stiffening, a flash of limping wings — then a bird out of sight — and generally past even High-Low's finding.

Partridge shooting is more than mere sport, - a liberal education in sureness of eye and brain and hand. Unless they work together, and so swiftly the working appears to be simultaneous, it is very near a waste of good powder to fire a gun. When the covey whirs up, a cloud of wings, the man who hesitates is lost. He who takes slow aim is in much the same case. You must see whether the birds fly to right or left, mark their speed, and shoot, not at them but where your eye assures you they will be in the next two seconds. Sometimes this is as much as ten yards ahead. With birds going straight away, the gunner of course lets drive right at them. Commonly they scatter like the fragments of a bursting

shell, going down singly or in couples all about the field. They keep a perfectly straight course for maybe two hundred yards, then wheel, usually across the wind, and go down with a long very gradual circling slant. A covey put up and not fired upon does not scatter, but circles, or rather wheels before settling just as do the worse frightened birds. Birds scattered by a volley lie close for several hours, until nightfall indeed if they are scattered in the afternoon, never stirring until they give out the assembly-call and find it answered.

There was never any killing out of whole coveys at White Oaks, not even when the neighbors gathered for an all-day's hunt there. Often then there were a dozen guns in hands that knew what to do with them. Shooting began out in the tangle upon the edge of the flat-woods. By twelve o'clock the hunters were commonly at the creek. Mrs. Baker sent down dinner, and they ate beside the spring, while the dogs, tired and thirsty, swam about in the creek, lapping and laving their fill. There was a fire on the bank for boiling coffee. Mrs. Baker would never have insulted her own palate nor that of a guest, with coffee made a mile from the place it was to be Sometimes Patsy went along with the dinner baskets and the coffeepot. Both were

in charge of Seeny, Dan's wife, who was very black, very deft, and very discreet. Seeny and Patsy also carried salt, pepper, and butter for the bird-roast. The hunters themselves did the roasting, wrapping up fresh-killed partridges, feathers and all, in lumps of very wet clay, and then thrusting the lumps in the hottest part of the coffee fire. By time the other things were eaten the birds were done. Each man pulled out his clay lump, cracked it between two stones, peeled off the fragments, which took with them all the feathers, then, holding the hot juicy bird by the legs, dipped it in melted butter, salted it, peppered it, and ate the tender flesh, throwing away, of course, the skeleton, though some few twisted off leg bones, and craunched them in their teeth, claiming a bird's real savor lay in the bones.

Since they were kindly men and gallant, Patsy was tempted with many roasted birds, but she would not eat. Captain Billy Ventress, the best shot in all the hunt, teased her by saying it was because she herself was so near a bird, she did not like to be a cannibal. Patsy was brown like the birds, — browneyed, with a mop of tangled curly brown hair. She stepped lightly too, upon little hollow feet. Captain Billy claimed her for his sweetheart, gave her things, and kissed

her, upon Christmases and birthdays, but since he was a bachelor and very old, Patsy did not mind. She was rising ten you see, and Captain Billy — well, he was thirty if he was a day.

## The Possum

squawking and fluttering among the hens with young broods waked him — he ran to the hovels, saw a gray furry thing slide away from them, leap upon the fence, follow it to the gate, spring thence into a black walnut tree growing beside it, run along the walnut boughs until they lapped those of an oak above the wood pile, scutter through the oak, and down its trunk, and at last disappear under the

logs.

When they got him out at dawn, they found the whole place full of shells and feathers and bones. The sly rascal had harbored there, right under the noses of everybody, choosing a route back and forth the wisest dog could not follow. It was early spring, so Joe knew his mate had whipped him away from the nest. She had just got her young in her pouches, so needed all the room herself. Like the mother-hawk, she is bigger than her mate, also a better fighter. She will fight almost anything for her young until they are big enough to run and climb. For six weeks after they are born she keeps them snug in the pouches underneath her. When she sits up you see funny little heads each side, sticking out of the slit between the pouches, or suckling, very much as pigs suck. They do not stay constantly in the pouches. They creep out

to play clumsily, after their eyes open, but scurry back at her first warning grunt. The play-spells outside grow longer and longer, but still the young possums seek their accustomed shelter until they grow too big to get in it.

Then Sis Possum carries them another way, all huddled on her back, with their tails clinging to her tail, which is held up over and parallel to the backbone. Thus she runs out of the nest with them, or blunders about the woods. The nest is in either a hollow tree, or log, or stump, a dry cranny in the bluff, or is scratched out beneath the floor of a low-set outbuilding. It is lined with leaves and grass, and is deserted after one season.

Sis Possum likes best to fight with a tree or a stone at her back, but if she must do it in open ground, she half-crouches over her young family, and strikes out with teeth and fore feet. Her teeth are almost tusks. That is another point of likeness to her cousins, the pigs. Like them, also, she is carnivorous if need be — eating birds and their eggs, very young rabbits, beside such small deer as mice, and grub-worms. To get at the grubs she turns over rotting logs with her sharp nose. She also roots pig-fashion for sprouting acorns, and nips off mouthfuls of tender grass.

Feeding thus in spring and summer the

possum's flesh is coarse, rank, tough, and stringy. The beast is a gross and mighty feeder, yet withal an epicure, eating many things and much of them if he must, eating the best things, and still more of them, if he may. He divides the mulberry crop with the squirrels, though he does not care much for green corn. Sweet apples tempt him to the orchard, he has also a nice taste in blackberries. But none of these compare in his mind with grapes and persimmons. The earliest of these ripen in September. By October possums are fairly edible, but it is not until November that they reach their prime.

They are fat then — fat as they can waddle. All their flesh indeed is delicate and of melting richness. The skin under the gray white-tipped hair glows a lively pink, like the skin of a young white pig. A possum is never skinned for cooking. Instead it is rolled in hot ashes, and scraped as a pig is scraped. It is either stuffed with sweet potatoes, and roasted whole, or baked with the potatoes in the pan all around. The cooking must be thorough — the skin crisp enough to crackle in the teeth. The taste of a young possum, properly fat, freshly caught, and dressed before he was fairly cold, is very much that of a glorified sucking pig.

Before the roasting comes the catching, consequently the possum-hunt. Black men are incomparably the best hunters — perhaps through the inherited aptitude of many generations. Joe always went with Dan and Little Mose. Other black fellows went along, but only those two were essential. Dan could out-chop, out-climb and out-halloo anything of his inches in the county. Little Mose's distinction was that he owned Wrong, the very prince of possum dogs.

Nose makes the possum dog. He may be of any breed, or all, or none. A setter or pointer which develops the possum nose is hard to beat, but ruined for work after birds. The very best dogs are mongrels of wholly indistinguishable antecedents. Some few have rough wiry coats hinting of terrier blood, others jaws of bulldog pattern, and still others ears and legs that bespeak a remote hound cross. A simple yellow cur may turn out an ideal possum dog—so may a fice, especially a bench-legged fice. But, whatever the breed, the fact is indisputable—no litter, however big it may be, was ever known to hold more than one real possum dog.

Wrong was proof enough of that. Except when the two were hunting, you could scarcely distinguish him from his litter-brother Right, whose name had turned out to be severely

ironic. Both had dead-black coats, crooked fore legs, strong jaws, bluntish noses, stump tails, and pure pale-green eyes. In spite of the likeness Right was always wrong, and Wrong as invariably right. Right the dog had no brains whatever. He ran anything or nothing, just as the notion took him, would stand barking half a day beside a perfectly sound stump, trying to make the world share his belief that there was some wonderful beast inside or under it, or if he ran a real rabbit, followed it at an easy dilettante trot, his mouth open, and yawping once in every ten yards. A molehill was quite another matter he ran along it so fast and barking so furiously, he sometimes stumbled over his own fore legs and took a header that knocked the breath out of him. Notwithstanding, Slow Pete, his master, had faith to believe he would make a great dog, when he had time to come to himself. Since Right was rising two years old, Dan and Little Moses laughed at the prediction.

They scoffed at the bare mention of taking Right possum-hunting. They did not really need any other dog than Wrong, but since a barking chorus is jollier of nights than a single cry, they tolerated Daddy Jim's two dogs Music and Damsel, who at least knew enough to follow Wrong's lead. Music was a cur of no degree, Damsel had a remote hound cross;

neither was much to look at, but both had a place in the hearts of their hunting countrymen. It was a near thing as to which of them was the better, but nobody ever thought of disputing that after Wrong the incomparable, the pair were the best possum dogs in the county.

All three knew their business to a nicety. They understood what was up, in fact, as soon as their masters began splitting wood for torches. It was odd to see them then crouch at the men's feet, looking up at them with pleading eyes, whining a little and beating the ground with their tails. They dearly loved a night run, and sometimes, when the torches were for fishing, they were left at home, chained to the cabin walls. Hence the little entreating whimpers, the crawling to the master's feet to lay the head upon them. Wrong had this much of real greatness - he never thought himself indispensable. Instead he begged as piteously to be taken as the awkwardest and most unkempt puppy of the possumdog brotherhood. Before hunting nights Little Mose always gave him extra feed at breakfast, with only bread and milk at noon, and a hunch of ash-cake for supper. He knew a dog must have strength to run well, also that he would never run his best nor trail his best with an overfull stomach.

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Possum-hunters have an assembly-call the same as partridges. It is a keen whooping halloo. Little Moses generally raised it, in signal to the rest to gather in the road before his cabin. Dan and Joe were commonly the first to answer it. Dan could out-whoop Little Mose if he tried — but when your hunting depends largely upon the loan of another fellow's dog, it is not the part of wisdom to halloo him down at the beginning. As the hunt trooped in, Little Mose distributed torches. Daddy Iim always fetched his own torch he had a special art of shaping and tying the stick bundles so they burned with a steady pointed flame. Joe had tried to learn the art, but Daddy Jim pretended he had none. was secretive in many things - as for example regarding the bait he used when he came back with such fine strings of fish, and how to make a water-melon vine bear red-meated melons or yellow, at will.

A possum dog is generally likewise a fine coon dog, so the three dogs did not know until the hunters laid their course what sort of game they were expected to follow. Coons abide in the woods along the streams. They cannot live far away from fresh water, since they first dip into it every stored morsel they eat. If the hunt headed for the creek, that meant coons as plain as daylight. If, contrari-

wise, it went toward the old fields and the strip of tangle, possum was the word. And then the dogs were glad — so glad they leaped and fawned upon their masters, then set off running full tilt, and barking in little short happy yelps as they ran. Wrong's bark was his worst point. It was shrill, almost whining. Damsel had a bell note, Music a loud half-roaring voice, not the least bit musical, but dependably honest.

Luck is best under a growing moon. least every experienced black possum-hunter firmly believes so. That is not strange considering he also believes that life and death, and blight and growth, the turn of the seasons, wind, sunshine, and rain, all depend upon lunar influence. He explains that as the moon waxes or wanes so does the scent of the wild creatures. Naturally a growing scent leaves a trail quickly found and easily followed. there is a color of reason behind his belief, is easy to understand why November hung are so fruitful. The Hunter's Moon shirt then, red and fiery at the rising, later a sh or a sickle of burnished silver swimming across a violet velvet sea. It rises earlier any other moon of the year. The light makes bright the fields and woods who even a little way up the sky. But the st are densely dark. Torchlight is need

- also late or early when the moon does not shine.

Still, it is bad luck to start out by torchlight. After the hunt is a hundred yards away, it does not so much matter. Dan commonly lit his torch, even if there was a moon, when they came to the fence around the old field. If it had not been for the hedgerow you might have walked through the rotting rails anywhere. The old fields made part of the land that had been in chancery. It was all of twenty years since a plough had run in them. Still there were many acres clear of everything but sedge, yet thickets were plenty, and very tall, as were also persimmon trees. Grape vines overran the thickets, and not one persimmon tree in a dozen was unfruitful. Persimmon trees are male and female, but, luckily for Brer Possum and his congeners, the proportion of unfruitful staminate trees to fruitful pistillate ones is less than one to twenty. Hedgerow thorns made it well to go in through the gap, unless you coveted rents, tatters, and scratches. The White Oaks possum-hunters did not covet them - still sometimes they struggled hrough the wall of tangled stems, so as to make a short cut and get ahead of impertinent earlier comers, whom they heard whooping inside. Whoever came first to the big swale, about the middle of the old fields, always got

the cream of the night's hunting. There were some six hundred acres of the old fields, so there was room for many possums and their hunters. But since White Oaks lay nearest, those who lived there felt a sort of pre-emption right to choice in the chase after the night

rangers.

Persimmon trees are, after a sort, sylvan immortelles. Nobody ever saw a dead one, any more than a dead mule. Cutting down and grubbing up does not destroy them. They sprout cheerfully from the tiniest tip of root, and keep on sprouting from year to year, defying even August cutting. As to seat, the tree is nobly catholic, growing and bearing much fruit upon thin land, growing more, bearing still more fruit, upon rich. It spreads by seed as well as by sprouts. In the sunny open fields, which it loves passing well, it grows commonly in clumps, from five to twenty, though the clumps stand well apart. In the woods it grows singly, and, curiously enough, ripens its fruit earlier than when growing in the open. There are very many varieties of it, differentiated mainly by the several man ners of fruit. Some trees ripen it early i September. Others keep the acrid pucke tang until February. The early trees are oft bare before frost, covering the ground und neath with their fruit, which is round, dee

flattened at either end, of a deep tawny yellow, and thickly covered with the richest blue bloom. The flowers, green and inconspicuous, come out in mid-May all along last year's twigs. Sometimes they are very many, sometimes very few. By their number you can iudge the next fall's persimmon crop, since every one sets fruit. This early-ripe fruit is lusciously sweet and juicy. The pulp is near the color of a ripe pumpkin's flesh, but a thought more tawny. It lies close around the seeds, which are flat, satin-smooth, and of a light brown, each firmly incased in a fleshy skin. A persimmon might indeed be described without libel, as a rosette of these flat seeds bedded in pulp and covered. To the very last the seeds keep the puckery quality of the green fruit, so, in eating, it is the part of wisdom merely to suck the pulp.

Late persimmons hang on all winter, and are thus a real godsend to the wild things in the time of deep snows. The trees grow most commonly on poor clay soil, lying high and dry, yet reach a fair size for their kind. Persimmon trees never grow big — one as much to stwo feet across at the butt is exceptional. The late trees bear lavishly, literally loading with their twigs with fruit, but the fruit is all, not half the size of the early globes, yet er of seed. It is also dry, to mealiness, yet

well worth eating when picked frozen from the tree. Betwixt the early sort and the late there is a constant succession. All but the very latest cast their fruit as soon as it reaches full ripeness.

Wild grapes are something the same way. They are divided roughly into summer grapes and winter ones, though the summer grapes do not ripen until October. They turn black the last of August, but are hard and so sour, even the birds leave the clusters for a while untouched. By and by when the leaves turn vellow, and the tendrils crisp, summer grapes are truly delectable. Strong young vines rooted in a rich hedgerow, or woodland, bear many long clusters of fruit as big as a pea. Old vines cumbered with much wood, blossom profusely, but bear little fruit. What they do bear commonly hangs so high the birds get all of it, though sometimes when the crop is heavy, and there comes a warm rainy spell just after frost, the grapes drop from the bunches and feast the hogs wild and tame which may happen to have the range of the woods. These vines climb to the tip of the tallest oaks, and occasionally are as big arounat as a man's body. How they climb so highed a mystery. Often they have long swayiful cables two inches through, running up, up, v no sign of tendril, nor of twig to which a and dril might cling, for thirty or forty feet. luck

Muscadines which are half wild, half tame, growing as well in the garden as the woods, look more like plums than grapes, though the vine proclaims their real nature. They are as big as small marbles, and grow in clusters of three or five. They turn black in August, and ripen in mid-September. As soon as they are ripe they drop, often bursting if they drop from a good height. They are full of sweet juice and pale-greenish pulp. The skin is thick, leathery even, black outside with a heavy blue bloom, and deep wine-red inside. It is full of burning foxy flavor that quite spoils the fruit for the human palate. But muscadine wine, properly made, is nearly as good as champagne - clear, sparkling, of a delicious pale pink, and a rich fruity bouquet. Proper making is tedious work - the pulp must be deftly popped out, and the skins thrown away. Pigs and possums do not in the least object to the skins, though sometimes when they are eyelid-deep in muscalines, they raise their heads, open their mouths, end make a little blowing noise, as though living to cool a burning tongue.

SWinter grapes, otherwise coon grapes, are dible even to Brer Coon until after frost fallen upon them. The vines are ramed a, the fruit very plenty, though both the cers and the berries are much smaller than

the summer grapes. The skin is black and shining. Pulp there is none, but when ripe the twin seeds seem to swim in sweetish odd-flavored juice. The vines love a moist situation, so take possession of the banks along wet-weather streams, pond edges, and low overflown flats beside the creeks. They grow also in swales if once they can manage to overtop other growths. They have not the summer grape's facile habit of creeping from shade into the fullest sunshine, no matter what stands in the way.

Winter grapes hang on a long time — until March unless they are pecked away. Sometimes they even dry up in the bunch. Foxes love them so well, they haunt the ground underneath, nosing about for the scattered berries the luckier birds have flung down. Brer Fox is by no means opposed to mixing his grapes with all the birds he can catch. Indeed some say it is the chance of bird-catching that brings him to the grape-tree, and that the nosing in the leaves is merely a blind. Brer Fox is beyond question a strategist, still he must be granted his natural appetites. One fox at least, captive and far from content, showed every mark of delight when a choice handful of coon grapes was flung into his cage.

Possums may be depended on to know and choose the best feeding-ground. Hunting-luck

depends very much upon the hunter's knowing the same thing. In the old field, Joe and Dan had the lay of the land by heart. The big swale was full of grapes, summer and winter ones, not to name crab-apples and black haws and persimmons thick enough on the higher ground round about the swale always to furnish two or three trees fully ripe. So they went straight to it, crossing open breadths of sedge, with the dogs running out in leaping circles upon either side. Wrong worked majestically alone. Music and Damsel kept together as though hunting in couple. They were excellent comrades except now and then, when it happened Music was taken upon a night hunt and Damsel left.

All three ran deviously, sniffing audibly, and visible only when they leaped higher than the sedge. It came up to the waist, in places even up to the shoulders. So the hunters cried lustily to the dogs: "Hi-yi! hi-yi! Hunt him up! Hunt him up, old dog!" The crying was spasmodic. There must be intervals of silence to catch a dog's possible opening on the trail. The trail might be struck in the unlikeliest place. Brer Possum comes and goes almost as crookedly as Brer Rabbit. But no matter how crooked a line may be, if you take a compass and keep drawing circles all over the surface it crosses, one circle is

sure at last to fall slap upon it — hence the tactics of the dogs.

When Damsel found first, Daddy Jim gave a yell at least three miles wide and half a mile high. Daddy Jim's dogs stood to him for wife and children and friends. others never in the least grudged his triumph - Little Mose indeed led the whooping after him, quite as though Wrong was not in the Everybody ran pell-mell after the dogs, all three in cheery full cry. Somehow their notes accorded well - particularly well when they were undervoiced by lusty yells and whoopings. It was a jocund rush to the persimmon trees. There often the moonshine showed a couple of gray gluttons feasting in the very tip. Persimmon trees are ill to climb - they are not only distressingly slender, but have few low growing branches. Notwithstanding, somebody at once went up to shake out the feasters. The climber got as near them as he dared go, then set the tree rocking, at the same time shaking with all his might the especial branch to which they clung. If they were fat --- and what November possum is not? - he easily shook loose their foothold, but then the tail came into play. A possum's tail is as long as himself, very strong, and hairless for six inches from the tip. With this hairless part he can grip and cling, wrapping it round and round a small bough, and holding fast though the shaking may swing him back and forth like a pendulum.

Sometimes if he felt the tail-hold slipping he let go and made a mad leap for a neighboring bough. But when at last he was shaken out, or, if that was impracticable, the tree itself chopped down, he lay seemingly dead, eyes shut, tail limp, paws limber, a lump of fur and flesh not even stirring at a snuffing dog. He did not breathe indeed so long as his captors stood watching him, but once their eyes turned elsewhere he was up and away like a flash. He rarely got the chance, though. Somebody either hustled him into a stout gunny-sack, or slipped his tail into the cleft end of a sapling, and swung him over the shoulder. A double catch — that is, two possums in one tree - was balanced at either end of the sapling, and sent joyously home. A fat possum is too heavy to carry uselessly throughout a night hunt — how much more then two fat possums? The beasts were always kept alive, fed, and often fattened, until wanted for cooking. Unless dressed as soon as killed, the flesh becomes rank and unpleasant.

It was odd to see the dog strike a wild-cat's track. They ran faster than ever, but with bristles up and a deeper menacing note in their barking. Wrong always seemed to be pro-

testing - he trailed nothing but possums and coons, though he could do no less than join in the crying when Music's growling note said "Varmint!" There were not so many wild-cats, but almost every season one was The negroes never let a cat slip if they could help it - Major Baker had a standing offer of a lamb and a pig for barbecuing, to each man who killed a wild-cat. The cats if they multiplied would, he knew, cost him very many pigs and lambs. When old and savage, they kill, not from hunger, but purely for the sake of killing. Their harborage was the sink-holes about in the swales, especially the big swale, which had a water-shed of many acres. When the dogs ran them to their holes somebody threw a lighted torch into the hole, and when the wild-cat leaped out, yowling and spitting, trying to turn on his back, or to sink his claws in a dog as he leaped, he was knocked down with long poles, and quickly killed. Whoever gave him the finishing stroke cut off his ears, and the tip of his blunt tail to show he was a real wild-cat, not merely a tame cat gone wrong. But even if the tail was long, the Major did not grudge the reward.

Towards twelve o'clock, when the moon stood high enough to light up tall timber, the possum-hunt was apt to turn into a coon-hunt — particularly if it had had great luck in possums. Coons compared to possums are lean at their fattest, but of a high game flavor, savory enough after a surfeit of sweet fat. Old Man Shack said "a yearlin' coon that had n't hustled hisself too much, killed when the sign was right, skinned with the head on, and fixed up nice with pepper and salt, an' flour-doin's inside, was better'n any wild turkey that ever gobbled or strutted "- but the old man, it was well known, would eat pretty much anything that could be got inside an oven or roasted in the ashes. For the most part, negroes only ate the coons. Joe tasted the meat once, when Dan had a particularly fine roast. It was well-flavored, but somehow he did not relish it. He did relish though, to the utmost, a coon-hunt after midnight.

The world lay all enchanted then, with the dew crisping into frost under the silver moonshine. There were white blurs and blotches upon the tree-trunks, and a glorious mottle of light and shadow all over the rustling leaves. The dogs ran freer, and bayed louder, the whoops were keener and more thrilling. Wrong took the lead then as of right. No coon ever littered could trick his keen nose—not even by springing from one tree to another for maybe three hundred yards before he came to earth and set off at a dead run for his waterside castle.

Wrong ran leaping, catching the scent in air, barking as he ran, his eyes glinting green fire. When at last he treed, either at the nest, or away from it, he was the very moral of quivering eagerness until he saw the axes out and somebody building a fire. Then he lay down sedately, put his nose between his fore paws, but kept his eyes fast upon the tree.

When the coon was shaken out, or the tree came crashing down, Wrong was upon his foe in the twinkling of an eye. Coons are hard and bitter fighters, turning upon their backs as they touch the earth, and striking out furiously with teeth and claws. But no matter how big and savage the coon, nor what a master of fence he showed himself, Wrong never let him get away. Wrong had both the wit and the art to nip Brer Coon betwixt ear and shoulder, whirl him over and finish him with a quick crunch at the back of the neck. Sometimes when a nest tree came down and a whole coon colony was chopped out of the snug, grasslined woody chamber in which they had thought to sleep away part of the winter, Wrong had to choose betwixt old coons and young, and always chose those who would put up the best fight.

Coons hibernate but slightly, sleeping commonly from the winter solstice to about Ground-hog Day — which is the second of February. They nest high, in hollows well up the trunks of tall trees. A warm spell in January wakes them to sit nodding and blinking in the doors of their holes. But the sleeping is evidently not to escape cold weather, since they run about over light early snows, and if the creeks, at their lowest in November, skim over from sudden severe weather, often break the ice to wash their feet, their faces, and their breakfasts, thus showing themselves the cleanliest among nest-making animals. Joe had had more than one young coon for a pet. They were pretty, intelligent, and full of cunning tricks, but so mischievous he always ended by turning them loose as soon as they were big enough to shift well for themselves.

Sharp axes, with strong and willing arms to ply them, bring down very big trees in a little while. By time the coon was caught or the colony chopped out, the fire was blazing royally and potato-roasting in order. Sometimes the potatoes, sweet yellow yams, came out of the gunny-sack or the pockets of the hunters. Oftener somebody had slipped aside to plunder an outlying patch. Nobody ever objected to such plundering. It was accepted indeed as the sign of good neighborhood—besides the plundered knew their potatoes might come back to them in the shape of a fat possum. The yams were dumped right

in the middle of the fire, covered first with embers, then with blazing brands that would shortly be coals, and left for half an hour, men and dogs the while lying supine upon the leaves, feet to the fire, the men telling ghost tales, or hunting stories, or the signs and wonders of witch-work. Joe listened drowsily, watching the moonshine creep, the fireshine flicker, until his eyelids shut of their own weight. And then he knew nothing more until Dan hauled him up standing, thrust something hot into his hands, and said loudly: "Wake up, ole son! Eberybody else done eat er hot tater — eben ter de dawgs."

Going home through the gray small hours with cocks crowing all about, the hunters often sang. Daddy Jim never sang out loud but droned a low deep under-chord. Most of the songs were but snatches. Dan said Daddy Jim knew every song that ever was made for a night hunt but wanted to keep them all to himself. Little Mose also knew songs, and many tales of the animals, but he had a fitful memory—it was not once a month he could sing anything or tell anything straight through. If Joe lives to be a hundred he will never forget one especial night hunt, all mist and moonshine, when Little Mose found his memory, and sang without a break, this true and proper coon song.



LE Brer Ring-Tail, Ring,
Ring, Ring—
Ring-Tail! Ring-Tail!
Ring-T-a-i—!!
He lip froo de tree, an' he
swore "By jing!"
Ring-Tail! Ring-Tail!

Ring-T-a-i - l!

De dog wa'nt er puppy dat eber could ketch him!

De nigger wa'nt er nigger dat eber could tetch
him!

De bag wa'nt er bag dat eber would fetch him, Ter turn an' twis' an' splutter an' sizz, Down dar in de i'on jail.

Brer Ring-Tail mighty sly, but de moon, moon,

Moon-Shine! Moon-Shine! Moon-S-h-i-n-e!! Hit gut de tricks ter beat ole Brer Possum an'

Brer Coon

Moon-Shine! Moon-Shine! Moon-S-h-i-n-e!! Hit tole ole Brer Possum: "Yes, yo tail is mighty long!"

Hit tol ole Brer Coon: "Yes, yo claws is mighty strong!"

Hit tole ole Brer Rabbit: "Yo ears is set on wrong!

But you aint got er show when I lets my dog go! Den, you ebery one is mine!"

## Night Noises

## Chapter VIII



OUND carries wonderfully through the unvexed hush of a farmland night. As dusk deepens to thick darkness the stillness of woods and fields becomes impressive. Night noises break

up the stillness as a stone dropped into a pool

breaks up its glassy surface.

Joe loved to listen for the night noises. He thought if he should go to sleep, and wake suddenly months afterward, he would know the season by the night sounds. The sounds made a sort of aural calendar. Every month had its own, and every sort of weather. Summer sounds were so many they blurred and blended; so did those of the full springtime. Upon winter nights the noises were little islands set in washing seas of silence, unless the wind blew very hard. Fall nights were vocal, but the voices were always distinct, rising with clean-cut cadences, and dying as they rose.

Cocks, which crow all the year round for midnight and for daybreak, begin early in November to crow more and more frequently, until at Christmas, according to Shakespeare:

#### " The bird of morning singeth all night long."

Shakespeare and superstition agree that the constant crowing is to banish ghosts and witches, and make the nights safe and wholesome all through the holy days. Science contrariwise, says atavism—throwing back to the jungle days, when the wild ancestors of our domestic fowls sounded their clarions as a sort of sentry-call to frighten off night prowlers, who are always most audacious and most bloodthirsty at this special season. A fact in support of science is that you may set cocks crowing as the nights lengthen, anytime after nine o'clock, by lightly disturbing the roost, or even moving about it carrying a torch or lighted lantern.

Cocks never crow simultaneously. Sometimes a veteran begins, oftener a pert young cockerel half rouses, flaps his wings three times, and flings across the still dark his raucous immature challenge. He may crow twice before he is answered. Generally better grown cocks upon the same roost keep silence until they hear from the neighbors. Then they crow lustily two or three times, at intervals of a minute. The sounds ripple from farm

to farm. All through the hushed fields there is a cross-fire of answering crows, near or distant, but all shrilly clear. By the distance and direction Joe could tell whose cocks answered first. Little Mose half a mile off had a famous red-game fellow whose crow was really tuneful by contrast with the hoarse sputtering note of the Shanghais and Langshans over at the Suter place half a mile beyond Mose's cabin.

Upon the off nights when Joe himself was not hunting, he came pretty near to knowing who was afield. Indeed he could not help but know - yells, halloos, and barks are so distinctly individual. When they came in running chorus, with the beat of flying axes a little later, and afterward the crash of a falling tree, it all meant, of course, that a coon had run his last; but by the after-whooping Joe judged whether old man Shack had got him, or Daddy Jim, or some of the black fellows from the saw mill. Even in whooping the old man drawled a bit - though night hunting was the one thing at which he was not lazy. Daddy Jim's whoop was mellow, but savage at the very last. The mill fellows whooped hoarse and hungrily, as though their vocal chords were in need of oil.

The sounds came clearest upon still moonlit nights, but loudest when the air was thick and mists hung in the tree tops. In December, the ground froze hard of nights, and then you could hear all the passing on the big road for miles and miles. Still it did not touch the borders of White Oaks. The road ran to the county town seven miles away. There was much heavy hauling over it, and in the fall, before the winter rains, the red clay surface of it was beaten as smooth and almost as hard as glair ice. Wheels did not rattle or grind over it. Instead they set up a sort of vibrant hum. Shod-teams, or even those half-shod beat out with their hoofs a deep drumming rat-tat. Those going barefoot made a blurred plopping sound. Saddle-horses galloping set the clay ringing almost as though it were metal.

The road wound down a long hill to cross the creek. A spring broke out just above the ford. Wagoners often camped there. Joe knew when they meant to camp by the way they rattled their teams down hill. The sound of axes chopping logs for the camp fire was quite superfluous. He knew too by the rattle whether the wagons were light or laden. Light, they made a great clatter; loaded, they bumped and jarred. Wind and weather had much to do with the distinctness of the sound. The road ran to northwards. South winds blew back the sounds, as northerly ones, or northwesterly, brought them straight to the ear.

The railroad came, at its nearest point, within five miles of White Oaks, but, with the ground frozen and the wind right, you might have fancied you heard the trains just back of the fields. There was a trestle of some height a little beyond the nearest point. Joe could tell, by the sinking of the sound, when the trains were slacking up for it, long before he heard the three whistles, which asked the bridge-walker if it were firm and clear. got a time-table, and amused himself by noting when trains were on time or behind it. began to hear the noise of passing five minutes after they left the station in town. He had tested that over and over. One especial train, the south-bound limited, was due to leave at It started in a deep cut, else seven sharp. you might have heard the whistle at White Oaks. When it struck the open, a little down grade, the burr and buzz of it went all across country. Joe persuaded himself that the burring and buzzing were some way unlike the sound of the two freights, which ran next, but Patsy, who was a regular Fine-Ear, laughed at him - though she agreed anybody could tell the noise of a coal train, it was so much more a grumble than that of common freight.

Toward Christmas the big road was so much travelled the noises ran into each other. Everybody went to town and stayed until sundown, hustling for Christmas money or spending Christmas money already in hand. Since there was no fun in listening to a stream of noises you could not disentangle, Joe and Patsy gave ear to the foxes barking in the woods, the owls hooting, the chickens scrambling about on the perches, and sometimes falling with a great squawking clatter. Their fine new feathers were so thick and warm, cold touched them only upon the feet. They roost in huddled rows, with the breast-bone coming down upon the perch between the claws. When their feet begin to sting and pinch, they rouse the least bit, and crowd to one side or the other, trying thus to bring one aching foot upon the perch where it is warm from contact with the breast-bone. If the whole perchful sidled at once, and in the same direction, all would be well. But the sidling is individual, and often in contrary directions, - hence the squawking falls, hence also the chicken thief's trick of the warm board, learned most likely from the gypsies. It is simple, sure, silent. The thief warms a long board, light and narrow enough to be easily held horizontal, and thrusts it in through the hen hole, under and parallel to the nearest perch. After it is in place he presses the warm surface of it up against the breasts of the drowsy birds. As the grateful warmth comes to them they step still more drowsily off perch upon the warm surface, and settle down with a soft. satisfied chuckle. How many settle there depends upon the nerve and the muscle of the chicken stealer. Two or three fat hens upon the far end of a long board, make even sturdy arms ache after a bit. The board must not droop the least bit — if it does the chickens fall off. It must be slowly and steadily withdrawn, until the nearest hen can be grasped through the hole. Her neck is wrung deftly, another and another follows until the warm board is empty. But no tramp nor outlander need attempt the trick at a well-furnished Tennessee hen-house. There are always dogs to give warning. If the warm board has done its work, the fact is first-hand proof that the hen-roost has suffered the dishonest troubling of a friend.

Time out of mind dogs have bayed the moon, but it is from the farmlands she gets the most varied chorus. Major Baker kept nine dogs. Eight of them were supernumeraries, so far as guarding the place went. Watch, the guard-dog proper, a big white mastiff strong enough to pull down a mule or an ox, let nothing come or go unchallenged after dark. He was not a noisy dog. Indeed acquaintance with him taught both Joe and Patsy that a dog's bark was really in

inverse ratio to his bite. All day Watch was a frolic on four legs, ready to leap and tumble about, stand up, and shake hands across the yard gate, or roll Joe and Patsy over and over in the leaves or upon the grass, sometimes catching a hand or foot in his mouth. but never so much as bruising it. He carried Billy-Boy on his back, or crawled to put his head in the little fellow's lap. Visiting neighbors he saluted with respectful wags of his bushy tail, strangers he followed to the front door, eying them judicially as he walked. That is, unless they were foolish enough to make advances, such as whistling to him, or trying to pat his head. Then he growled hoarsely, and showed half his teeth.

All this by daylight. At night even his master had to ask his leave to go in or out. If any unwary stranger got through the yard gate Watch leaped upon him, threw him over, and pinned him down, howling loudly for his master to come and see what manner of man he held. Still, unless the captive struggled the dog did not bite. He was vigilant, not vicious. The least sound round about the yard, lawn, orchard, or stable lot, set him off patrolling. He never barked unless he found something really suspicious. Patsy said he could smell out thieves from honest folk.

However that may have been, he had certainly a wonderful nose, and a still more wonderful eye. If he was bidden to cut out from the herd and catch one hog or sheep or calf in a hundred, he did it without fail, if he had to follow it all day, through and across all the tracks of a populous pasture.

Beside the home dogs, every negro on the place owned from one to five. Thus the Christmas guns were answered always with a yelping howling chorus. Neither men nor dogs thought of sleeping a wink upon Christmas Eve. The negroes big and little got home from town about midnight. You could hear them singing and shouting half an hour before the wagon turned in through the gate. They whooped and sang more while they fed the team, and later themselves. Then they popped firecrackers, half a dozen at a time, standing out in front of their cabins, and chaffing each other at long range. Towards three o'clock in the morning they touched off the Christmas guns - hollow logs with a pound of powder securely plugged inside with a fuse of waxed or greasy string running through a gimlet hole in the plug. The Christmas guns made a big awkward, blurring noise. By time the echoes of it, and the dogs were quiet, the gunmakers had set out, singing, or rather droning hymn tunes as they went,

upon a round of industrious and far-spread

visiting.

All the white folks sat up to hear the blacks sing, as they watched upon Old Christmas Night. The blacks were shy and furtive over this watching. White folks who did not believe in witches, nor conjure-work, nor even in ghosts, were unsympathetic with their lively and child-like faith that Christ was born in a cow-shed, cradled warm between two snow-white heifers, and that still upon his proper birth-night, cattle knelt to do him homage. They also believed it was bad luck to watch the kneeling cattle, and still worse luck not to be singing when the cocks crew for midnight. Their singing was weird, a droning, wordless monochord, by turns low or loud, and always in perfect time, no matter how many sang. Although so simple, it was thrilling. They sang in the log church Major Baker had helped them build for themselves in the corner of the old fields, next to White Oaks. When the singing was at its loudest you could hear it two miles off. The mellowing of distance made it indescribably plaintive.

The January sound in Joe's calendar though was not the Old Christmas chant. In a spell of bitter cold about the second or third night, the house timbers and the trees in the woods froze and popped like guns, but with a harsher, flatter noise. The popping was scattered, coming maybe half a dozen times in a night, and commonly after the turn of it. Joe wondered no little as to how it was made. It could not be that the timbers burst from freezing, as a pitcher or a glass would do if left full of water. The house had been standing fifty years, yet the sills and plates were as sound as at first. Still, once or twice in the woods he saw curious gaping seams up and down a trunk. Old man Shack explained that " such trunks were fool trees that had hilt their sap too long and had it freeze in 'em an' bust " - but Joe was not sure the old man ever told the truth except by accident.

In February it was the sheep-bells. February was lambing time. The ewes ran on the early wheat, and one in three was belled. This was to save them from the dogs. Many bells frighten off a sheep-killing dog which is not hungry but kills for the fun of killing. That is the besetting sin of bird-dogs, which, however, are shrewd-witted enough to leave their home flocks untouched and go miles away for sheep-slaughter. In another fashion the bells were protective. When any commotion in the flock set up such a ringing, Joe or his father at once went out to see what it meant.

Bells before midnight seldom meant more than a stir and fright from casual passing. Sheep-killing dogs know enough to wait until sheep-owners are very sound asleep. But any time between midnight and day, a tinkle even was alarming.

March had the noise of many waters. A pouring day or a quick thaw made the creek a mad thing, brawling fifty yards wide, snatching at the drifts, gnawing gravel-beds and sand-bars, roaring out hoarse and hollow threats as it raced past bluff and tree. The big horned owls seemed to take the threats as personal. They lived down in the creek valley, and, with the stream at flood, hooted from hill to hill all night long.

In April the swallows came to rumble down the long-necked stone chimneys at dark, and twitter and chitter there the nights through. Tree-toads also began to peep, spasmodically at first, but as the spring strengthened so did the peeping, until it filled the whole night world. It is a long-drawn ululation, in many keys. Tree-toads run all sizes from the spread of your hand to the end of your thumb. Nature colors them in protective mimicry of the leaves and trunks they live on and among. The big very flat ones are a clear, young leafgreen. The tiny fellows are greenish gray, for all the world like the lichens upon the oak

trunks. Intermediate sizes run the whole range of greens, grays, and gray-browns. Clinging flat against the trunk, you can hardly distinguish a toad from a blur of lichens. The creatures hop up or down, or back or forth, in the most astonishing fashion. They can get over ground as well as the common toads, but are much more at home in the trees. They live upon ants, moths, midges, and young slugs, crawling upon the slenderest twigs to get them, even resting contentedly upon the under side of a fluttering leaf itself. The peeping is not continuous, but very oft repeated. It rises crescendo at the end, and there is a delicate little accenting cluck between. If they began to peep in daylight, or the crying lasted until dawn, Joe knew he might look for rain. Thus they opposed the whip-po'-will, which also came in April, but whose call, even in the face of a thunder-cloud, is a sure presage of no rain that night.

Tree frogs and whip-po'-wills sang on through May and June, often so loud you could scarcely hear your ears for them, but in Joe's mind May nights belonged to the mocking-birds — especially nights of the full moon. Then he often lay awake all night long, entranced by their night chorus, the richest of all the year. Three mockers nested in the garden — one in the arbor matted over with

white roses and honeysuckle, another in the plum thicket, and a third in a hedge-row peach tree, overrun with a rampant muscadine. The garden was big, and not very trim, really half orchard, with a touch of playground. The mockers policed it vigorously, never letting dog or cat go through it. There was another and shyer colony of them, in the very back of the orchard, nesting in some very slim, tall cherry trees, yet haunting and harboring in the orchard hedgerow. All of them sang by day, but with such exquisite mimicry it was hard to distinguish the singing from that of the birds the singers mocked. At night they sang more clearly, more constantly, flooding the still world with pure melody, in rippling tricksy cascades. Love and strenuous rivalry lay under the singing. Each tried to outdo all the rest in the ears of his brooding mate.

June had a clown's note — the big double-bass bullfrog's: "Jug-o-rum! Jug-o-rum! Brek-ke-ke-coax! Brek-ke-ke! Jug-o-rum-um-um! Ru — um!" Though they bellowed something earlier, Joe always set them mentally to lead the orchestra of June. He speculated sometimes as to what a fine fright it would give a stranger — say a man from Mars — to find himself alone at night in a swamp where bullfrogs were plenty, and laughed to think of the Martian's relief when he came to

find out the ridiculous disproportion between Brer Frog and his voice. And he will never, no matter how long he lives, forget his father's comment upon a disappointing great man: "O! He's a sort of bullfrog—sounds very big until you see him."

After June, the deluge - otherwise the katydids. Their first song was important. Countryside folk believe that three months from the day of it, neither earlier nor later, there will come killing frost. Where tobacco is a money crop the frost date means much. Wheat and tobacco were the money crops at White Oaks — hence a great comparing of notes as to when the first katydid was heard. Katydids are not pretty, but look wiser than King Solomon. They are long-legged, also many legged, with longish, boat-shaped bodies, and are bright grass-green all over. They swarm all through the big new leaves, sleeping the day around, to feed and sing at night. is almost a continuous singing, long drawn and rasping, not shrill like the tree-toads', and of a maddening monotony. It begins at dark and lasts until after midnight. Poets who sing the stillness of summer nights have certainly never heard katydids in July and August.

Indeed throughout the later summer day is stiller than night. Though the katydids lead in number and volume of noise, tree-toads peep on, whip-po'-wills wheel and shout, Brer Bull-Frog pipes away upon his double bassoon. Sometimes, but rarely, a mocker, nesting late through a mischance to his early building, drops down a snatch of languid melody, but the melody is lost in the noise of creeping and crawling things. As a chorus the summer insects no doubt delight the Wagnerian soul, which bids avaunt such things as melody and harmony. But the simple folk who think music the better for tune and time, find it a trifle wearing, and rejoice when September silences a large part of the choristers.

Katydids keep on singing through September, but the month-note with Joe was the cricket's. He was always very glad, and just a little sorry when he caught the first cheep. It meant many things to him -- slacking work, time to rest, and read, and play — the delight of gathering in fruits and nuts. But it meant also that a summer was dead. And Joe loved the summer. Still he could not bewail it when October brought the fox-hunting. Fox-hunting began with night-hunting - thus hounds in full cry, horns singing thin and high and sweet, galloping hoofs and cheery whooping halloos, stood to him for the month and rounded out the year. Of course there were no hard and fast limits. Every noise lapped or lapsed - either going over into another

month or failing to fill wholly its own. Notwithstanding none of them fitted so well in another place as in its own. He was glad he had ranged them in due sequence, as he was glad of anything that fixed more clearly in his mind the charms and the aspects of his beloved fields.

# The Big Snow

## Chapter IX



ERE is a tale Little Mose told Joe by way of accounting for Brer Rabbit's harelip. Brer Rabbit was the very first thing created, when the Lord up in Heaven decided to make

a world. That of course accounts for the fact that Brer Rabbit is not so well-proportioned as he might be—he is really to be regarded in the light of an experiment. Still when he was dry and running around, he was set to keep watch over other animals as they were created. Brer Coon, Brer Possum, and Sis Cow, Brer Rabbit shooed away all right, but when Brer Fox got lively on his legs, he was inclined to argue the question. Still Brer Rabbit minded his work, and kept Brer Fox in check until Brer Fox somehow persuaded him to eat a piece of puccoon root, which at once made Brer Rabbit so sleepy he

nodded. The Lord meantime had made the moon and set it up by the fence. It was gilded all over, and the gilt not dry. Brer Fox thought it looked good enough to eat, so he slid past Brer Rabbit, and licked and licked the new moon, until he made the dark places still visible over the face of it. Just as he was about to bite the edge of it, the Lord turned around, saw what he was doing, and in anger flung his trowel spang at Brer Rabbit. It hit him in the mouth, and cut his lip in two. By way of punishment, the Lord decreed that the cut should mark all later rabbits - also that Brer Fox, who seems to have a knack of escaping his deserts, should be entitled to eat Brer Rabbit whenever he could catch him.

If the big snow of all big snows had never come, Little Mose might never have had time to remember the tale. Then, if ever, witchwork, whose polite and bookish name is enchantment, touches the farmlands. Big snows are not a winter commonplace round about White Oaks. Indeed, in that latitude, winter is truly a season of vagary,—sometimes so mild and open flowers bloom all through it, early blossoms lapping over upon lingering remnant late ones,—other times, so savagely cold even navigable waters freeze hard enough for teams to be driven across them.

More commonly, it is a season of contradictions — lumps and blotches of hard cold, mixed with other lumps and blotches of April weather and real Indian summer.

Snow stops farm work, but brings no holi-Joe went to bed each night as tired as he was happy. This snow was twenty-six inches on the level, with drifts over a tall man's head. It began to fall just after daylight, first in little round spiteful stinging pellets, pelting so hard they jumped up at a lively rate when first they struck the earth. They came out of a lead-gray cloud that seemed to rest upon the tree-tops, and were whirled about by a sobbing gusty east wind. Weatherwise people said, because it was an east wind the snow was sure to turn into either rain or sleet. According to their belief, the wind could not veer from east to north without boxing the whole compass. If once it blew straight from the south, the snow would melt, thaw and resolve into its original element, water.

When the wind did whip around northwest, they shook their heads and said the weather was not what it used to be. They shook them still more when the pellets became a smother of glistening icy dust so thick you could hardly see ten yards through it. Presently, when the dust lay half-leg deep, the thermometer went tumbling from just below freezing to a little above zero. Then the dust became a wall of thick soft flakes, small at first, but all the while growing bigger, until at last they fell with little soft, fat plops, like the patting of fairy fingers. They kept it up until after midnight. The moon rose then, and the strengthening wind blew every hint of cloud, or vapor even, out of the air. It was a still-voiced wind, neither shrieking around the eaves nor howling down the chimneys. To make up for that, it cut with an edge of tempered steel, and when the sun rose over a white muffled world, mysteriously strained all warmth out of the pink shining, and flung it back into stellar space.

Notwithstanding, everybody came out with a whoop of joy. Joe in particular saw so much fun ahead he danced and capered as he buttoned on his second pair of trousers over the first. When the legs of both pairs were snug inside his high boots, the boots duly greased, and his feet further protected by two pairs of home-knit woollen socks, one pair outside the boots, one pair in, he was ready to face and conquer the snow and all its works.

Some of them were pitiful. For instance among the birds. A partridge covey deeply snowed in will perish without help, though snow less than a foot it can break through, by rising all together. That is, unless the snow is crusted over. Then the poor brownies beat their lives out knocking against the crust. Joe found that some coveys had been wise enough to leave their ground perches for the thickets. Even there they were in snow caves, since the thickets were all mounded over. But they had at least a chance of life and some small show for food. There were peas and sumach berries in most thickets standing higher than the snow. The buckberries, though, were all hidden, so were most of the weed seed, all of the grasses, and likewise all of the mast.

Joe scattered food in every likely place—wheat, corn, peas, heads of millet, locks of hay. He threw corn only under the thickets. If he put it in the open he knew the pestilent crows would steal it, and also try to seize upon other smaller birds as they came to feed. Several rescued coveys he turned loose in the granary, which was big and quiet, and had still bins of wheat along one side. The birds would be safe there from foxes and minks—he knew if he took them home and put them in a coop, they would be too frightened to feed well. Since many birds would infallibly be lost, he wanted to save every life possible among them.

Partly because of the wish, he set a dozen traps in the hedgerows, and around the haystacks. Whatever he caught, he promised himself, should have food and shelter through the snow, and liberty afterward. He was the least bit sorry for the promise when he found redbirds in two of the traps pretty soon after they were set. Patsy had wanted a redbird for a pet this ever and ever so long. Joe decided before he laid hands on the fine fellows to tell Patsy of his promise, then give her the birds, and leave her own conscience to do the rest.

The birds were cardinals, as gorgeous as their namesakes and as warlike as any cardinal that ever wore the red robe. They bit Joe's fingers so hard they drew blood, and tried to peck him savagely in the eye, as he was huddling them inside his overcoat. Once they were inside the roomy cage, they flew at each other in fury, each seeming to regard his fellow as an upstart intruder, somehow the cause of his own evil case. In separating them for the sake of peace, Patsy let the most savage of them get away. It flew to the very top of the room, and clung there with its crest up, scolding vigorously at all the people in sight. A little later it flew back to the outside of the cage, stuck his head as near through the bars as possible, ruffled its feathers menacingly, and made a shrill hissing note that set the bird inside also to ruffling and hissing. This kept up for two days, the bird out of the cage meantime growing tamer than the bird within. Though he defied capture, he watched Patsy intently when she set food and water where he could reach it, and flew down to it the minute she was a safe distance away. And when, the second evening, he managed to fly out of an incautiously opened door, he hung about the house, sleeping at last in a cedar tree a little way from the front door, and came bright and early in the morning to the window-sill, peeked through it, ruffled, and hissed defiance of his imprisoned enemy, whose cage sat just inside.

The window looked out on the back piazza. Joe and Patsy had strung oat sheaves and millet heads all along under the eaves of it. They also strewed grain upon the ground outside, so all the winter birds were chattering and chittering there. The redbird noticed none of them. He fed disdainfully alone, pecking out all the grains of a stalk, then tossing the head away. As soon as he was done he flew upon the sill, and began to torment the caged bird. Patsy was strongly tempted to set her captive free, but Joe insisted that they had better be kept from fighting until warm weather should improve their tempers.

The fifth day of captivity she turned the caged bird out in the room. He had grown, not tame but fearless, and at once flew all about, investigating everything. There was a pan of water upon the hearth a little way from the chimney jamb. The bird flew down to it, drank, balanced himself gingerly upon the rim of it, stepped one foot over the edge, then plunged in up to his neck, and began a lively fluttering — all this less than six feet from where Major Baker sat, making a pretence of reading. His bath over, the cardinal hopped out, shook himself vigorously, then sailed up to the top of a tall secretary, perched there and began to dress his feathers with the utmost nicety. After a little, satisfied with his coat, he hopped down upon the bureau, and caught sight of his image in the glass. His tormentor outside was invisible. At once he jumped to the conclusion that the bird in the glass was his enemy. Ruffling, with fiercely lowered wings and a sibilant hiss, he rushed at the mirror. The impact was so violent he was thrown backward several inches, but in a breath he was again up and at it. Twice, three times, four times, he charged this enemy, evidently as eager and as angry as himself. Each time something cold and hard and smooth held him back. After the fourth failure, he stood quiet a full minute,

with his head the least bit aside. Evidently he was in deep thought. As a result of it, he marched to the side of the glass, stretched his neck cautiously and peeped behind it. It stood perhaps six inches from the wall - room enough for a bird, but no bird there. In a flash he was at the other side, peeping there Still finding no bird he walked out in front and again began a battle with his own He did not give it up until he caught a faint hiss from outside, looked over his shoulder, and saw the other bird upon the sill. Then he hesitated a minute, as though uncertain which to fight, but at last smoothed himself, turned his head aside, and twittered amicably to the bird in the glass, as who should say: "We are friends! Certainly! Come and let us two finish this other impertinent fellow!"

The bird in the glass also turned his head and twittered amicably. The bird outside gave his tail a diplomatic flirt. It was answered as diplomatically. In a flash the captive was at the window, ruffling and scowling furiously at the bird outside. But he kept looking over his shoulder, for the other bird, until it grew so late his real enemy flew off to roost. Then with a louder scowl, he flew up again on the secretary, fidgeted there a minute, spread his wings and made a hopping

flight toward the cage. Patsy had propped open the door and hung a bit of tempting green inside. Slowly, with much glancing about, and turning of the head, the bird hopped toward it. At the door he stopped, looked inside, then half drew back. But the next breath he flew boldly upon a perch of it, and made no motion to fly out when he saw Patsy coming to shut him in. He always showed her afterward a distant friendliness, but never permitted the least familiarity, though she kept him until the trees bloomed in the orchard, and she found him singing love to a small meek-looking browny-red creature, who fluttered anxiously around his cage.

Somehow Joe never found a jay bird in his traps. Jays were plenty and hungry and thievish no end. Joe was sure they ate at least half his bait, as he was also sure they sprung the triggers of the traps pretty often in the eating. Naturally there was a reason for not finding them. The reason lived and moved and answered to the name of Dan. Dan stole the jays, not because he loved them, but because he hated and feared them. He believed superstitiously, you see, that no jay was ever visible of a Friday. They spent all the Fridays in carrying sticks to the devil—sticks with which to kindle extra hot fires under all the bad black people; further, that

it was the worst sort of bad luck to have a jay fly over your head, or in and out of your stable. Bad luck also haunted whoever cut down a tree with a jay's nest in it, unless the cutter took the precaution first to knock down the nest by throwing stones, and, if possible, also to kill or cripple the nest-builders.

Joe thought there was something to be said for the jays. All he had ever shot had their crops full of slugs, weed seed, and insect eggs. He knew the jays were not patterns of all the feathered virtues, but they were good to look at, flashing in and out like bits of winged sky. So he had made a slatted cover for an empty hogshead in the granary, and had meant to keep the jays in it, not so much to save them - they were as hardy as they were audacious, as to see what they would do by way of passing their time of captivity. He had seen them by half dozens skylarking and chasing each other in the bare branches of an oak. They were bold fellows, bolder even than the redbirds, nipping and pecking lustily at whatever tried to seize them. They fought almost constantly with the woodpeckers after cold weather set in. He thought that was because they found, and stole, the woodpeckers' hoarded acorns. Going through the woods, he had grabbled acorns from under the snow, thinking to fling them in the hogshead, and find out if the jays would really eat them.

Still, if Dan did wring their necks, it was no great matter. They were plagues to the singing birds, robbing their nests of both eggs and young. Joe was tempted to do a little neck-wringing on his own account when he found doves and field-larks in the traps. They were pretty and appealingly helpless — but they also made the finest sort of bird-pies. Notwithstanding, conscience prevailed over appetite. Conscience had an active ally in Patsy. She said she would n't take advantage of a hungry bird to eat it — she left that sort of thing to the Shack gang.

Snowbirds fed round about the house in clouds. Old man Shack, coming to borrow a peck of meal, tried his best to persuade Patsy into having a dead-fall. "Children't home had one," he said, "an' it wus jest next door ter a merikle how many er them thar little fat gray rascals they did ketch. Why they had as many as half a dozen hangin' at the eend o' strings, an' roastin' before the fire, all the time, 'tween daylight an' dark. No, a snowbird ra'alely wa'nt no more'n a mouthful, but roasted that-a-way, with er walnut meat fer stuffin', hit was a mouthful worth while. Dead-fall! Makin' hit wa'n't no work at all. Jest set er trigger under one aidge o' er long

wide plank, scrape off the snow under the plank, bait the ground well, tie er rope ter the trigger, an' carry the rope inside—thar you wus! All you had ter do wus watch. When the snowbirds crope under the plank, er flew under the plank—zip! you pulled the rope—plank fell down—an' every bird hit ketched went right ter kingdom-come. Some flew away, of co'se, when the plank lit down, but hit ketched enough—except when thar wus sech er cussed heap er children ter eat as he happened ter wrastle with. Hit warn't jest no sort o' use tryin' ter fill 'em up on nothin'—not eben rabbits, ef the dogs an' the boys had ketched sech er God's plenty on 'em."

Snow time has nowhere a cheerier sight or sound than the wee bit of gray fluff, winging and twittering about, hopping daintily on one foot, pecking, preening his smart white waist-coat, or huddling cosily with his fellows, asleep in the shelter of evergreen boughs. Such shelter was plenty at White Oaks. There was an overgrown cedar hedge between the back yard and the front. Some trees in it had shot up thirty feet. They were sharply conical and so thickly branched the snow weighing down one branch upon another had transformed the whole hedge into a real Sierra Nevada—which is Spanish for "the saw-tooth range of snow." Birds flying in and out rifted the snowy

sides, and left deep dark caves in them, but, until the thaw began, all about the foot of the sierra there were foothills of swelling, gently rounded drifts, burying and staying the tips of the bended boughs. But for such staying the boughs would soon have shaken down some part of their snow blanket - and then the snowbirds and all the other birds would have been in very much worse case. The snowtent kept off the bitter wind; further there were cedar berries available here and there about the twigs. It was no wonder birds of many sorts crowded in - redbirds, bluebirds, garden and swamp sparrows, sap-suckers, an obstinate pair of mockers which had refused to migrate, jays, and even an occasional shy field-lark.

Each and several they hopped about the doors, some fearlessly, others flying if even the wind made a wavering shadow. Patsy laid planks across the rails, at the corner of the piazza, and strewed the planks with seed and crumbs, and tiny bits of fat meat. In reward she was able to watch the birds feeding, herself standing snug inside the window. Some of the shyest chose rather to feed with the fowls. Joe and Dan had had a great time, getting the turkeys down from their perch in a tall oak. One pert young gobbler sailed down at the usual time, stuck in a drift, then with

much loud gobbling, and many floundering leaps, gained the back steps, and stood there, telling the flock in most emphatic turkey talk they had better not try it — it was easier and ever so much more dignified to starve where they were.

That is the wild turkey's way. In a deep snow they keep to the roost for days — until the snow either melts, settles, or crusts over hard enough to bear their weight. But instinct has warned them to feed heavily, and upon things of staying quality, while snow is falling. Commonly they go to roost with crops almost bursting, they are so full of acorns, beechnuts, dried peas, or corn. Indeed, to find wild turkeys feeding in a deserted corn-field, searching it through and through for down ears missed in gathering, or overlooked nubbins, is about the surest sign of either deep snow, or a savage freeze.

Corn is heating — full of starch and fats. Green or dry, wild turkeys devour it greedily. They are either not wise enough, or not bold enough to tear off the green husk, but they follow in the squirrel's wake, and finish ears he has partly plundered. Summer corn lands have another charm for them. After the last ploughing, when the tasselling stalks make a thick green jungle with light earth at foot, wild turkeys go in to scratch, wallow, dust

themselves in the powder-dry earth, and feed on the grasshoppers, beetles, butterflies, and all the host of creeping things that are the corn land's rabble guests. Turkeys, wild or tame, feed gluttonously, gulping down a worm yet wiggling, an insect wings and all, except when they are carrying young. Then they practise, and teach to the broods, the art of killing before eating, also of pecking their prey and beating it against earth until it is freed of wings, legs, and long stiff feelers. Mother turkeys peck up a grasshopper into a flat mangled mass before they let their young seize upon it and pull it apart. Sometimes after the mother has pecked a dozen insects thus for her brood, she slips stealthily away from the brood, runs after other insects, and swallows them whole the instant they are in her beak.

There were several gangs of wild turkeys in the flat-woods, but Joe did not hunt them in the snow. Instead he hunted rabbits. Indeed everybody hunted rabbits. Every cabin on the place or round about it, had its big bunch of cottontails swung high on the outer walls. There was broiled rabbit, and fried, and smothered, for everybody. As to rabbit-skins, a regiment of Baby Buntings could have been wrapped in them until they looked like little Esquimaux. Killing rabbits, indeed, was partly a sport, but more nearly a duty. Major

Baker cheerfully furnished powder and shot it was the cheapest way of saving his young trees in the orchard. Notwithstanding, he did not trust wholly to it. The day after the snow, he had all the trunks rubbed for three feet up, either with fresh bloody fat, or the skins and entrails of the first rabbits slaughtered.

Brer Rabbit looks a pattern of innocence, but like many another pattern person, belies his looks. He is really a standing menace to the prosperity of the farm lands. The menace lies in his amazing faculty of multiplying himself by a million in a very little while. Under favoring conditions rabbits litter many times in a year. Litters run from three to six in number, and the young are full-grown at six months old. Figure a bit and you will understand how a homesick settler's chance turning loose of half a dozen rabbits, less than fifty years back, has brought about Australia's rabbit plague, whose damage must be reckoned in the hundred millions. Like the locusts of Egypt, rabbits devour every green thing unless the green thing has a protective animal taint. Then even starvation will not make them touch the tainted stuff - especially if the taint comes from their own flesh.

That is lucky for the orchards and the gardens. Brer Rabbit dearly loves the smooth bark of young apple trees, and upon a pinch

will also girdle young peach trees. In the garden he eats down green peas, young beet tops, beans, sweet-potato slips, cabbage plants. Fluttering white rags, scraps of bright tin strewed on the ground, or bottles tipped together so they will roll at a touch, all serve to frighten him away, especially in moonshine. But the safe and sure preventive of his night ravaging, is to sprinkle the garden plot liberally roundabout with water in which a freshly killed rabbit has been torn to pieces. Until rain falls he will no more cross a strip of ground so sprinkled than a snake will crawl over a horsehair rope. Rain washes the scent away, so after it there needs must be more sprinkling.

Brer Rabbit fights only one animal — his cousin-german, almost his counterpart, the hare. To the casual eye the animals are much the same, though science distinguishes between them. Both have the cleft upper lip, also the thick flocculent down underneath the hair of the coat, which makes the game books class them flock, as opposed to feather — which includes pheasants, partridges, quails, grouse and black cock, indeed the whole range of land-feeding game birds. Flock — the thick underdown — comes away easily. Mother-rabbits strip their breasts of it to line their nests. The nest is dug shal-

lowly in light earth. Sometimes it is a molerun very much enlarged. Rabbit-litters are blind at first, and have no use of their legs, though they will roll clumsily over and begin nuzzling at the touch of anything warm — a hand, a cheek, or even the warm side of a basket. They breathe very slowly and look more like pinches of whitey-brown hair than living creatures. The birth-coat is scant and almost rough to the touch. Down grows as they get their eyes open. But before they can walk they have the curious rabbit power to close at will the external ear.

A baby rabbit creeping shyly out for his first meal of buds and grass is the quaintest, daintiest figure of all the fields, so tiny he can snuggle down in your palm, soft all over as a fluff of thistle down, moving uncertainly with a slow, velvet-footed amble, yet never in a straight line. Thus early he knows that his track must be a maze — also that he must go home to the nest along the way he came. And there is where the exquisite rabbit-nose comes in. Coming and going thus, and breaking up the trail now and then with a leap, he lessens the danger of being followed and caught much more than half.

Like the other wild things, Brer Rabbit is instinctively ware of deep snow. He feeds mightily when the fall begins, then scutters away to his form in the grass or the sedge, crouches there, sinks his head well between his shoulders, and lets the falling snow wall him in. As the wall grows high and higher, he surges back and forth against it, still crouching, and thus shapes for himself a snow chamber something bigger than himself. When the wall grows higher than his head, he arches his back to the utmost and presses up against it. Thus even when the fall is very heavy he keeps himself from being wholly shut in. His warm breath fills the chamber, and rises in tiny spirals through the skylight of it, thus betraying his refuge to the folk who come hunting.

If they are but pot-hunters with no drop of sporting blood, they come without dog or gun, and, once the breathing hole is spied, fall flat upon it, seize the rabbit, spring up, swing him around the head holding him by his hind feet, and knock out his brains against the nearest stump or fence or tree. Sometimes Brer Rabbit evades the clutching hand, and bursts up through the snow, wildeyed and panting, to run away in prodigious long leaps. The catcher's comrades have something to say about that. Armed with longish stout sticks they stand round about, and commonly knock over Brer Rabbit at the second bound. Even if he escapes the

stick men his race is not long. He can make ten-foot jumps for a little while, but cannot keep doing it with deep snow under foot.

When the snow crusts over, then there is sport indeed. The hunters go out with all the little dogs available. Then truly Tray, Blanche, and Sweetheart come to their own. They wear collars, and are held back with stout strings until the rabbit has been routed out, and has got thirty yards away. So much remains in Tennessee wood-craft of the law, otherwise the start, allowed by the art of venery, to all hunted things. Brer Rabbit well away, and going like a shadow over the snow-crust, the dogs are slipped, and go after him, in howling, dancing chorus, sometimes so eager they trip over themselves. Only light dogs can run thus - fices, terriers, and cross-bred mongrel beagles. Wrong, Right, Watch, High-Low, Music, and Damsel, all had to be left at home, lest they break through the crust and lame themselves on the sharp edges. Patsy was a person of consequence, to be deferred to and conciliated. Her terrier Trix, and Button, who was nothing much but plain little dog, were the best rabbitrunners on the plantation.

Sometimes the little dogs ran down Brer Rabbit in fair open field. Oftener by dodging and doubling, Brer Rabbit got to a thicket or a hollow log, and was pulled out or smoked out. After a day or two, when paths in plenty had been broken through the fields so Brer Rabbit ran about freely, shooting began. The moon changed just then, and every black hunter cut off the left hind foot of the first rabbit he shot after the moon ran dark. He was careful to tell nobody, nor to let anybody see him do it. But all understood that the left hind feet were lucky charms good until next new year.

Belief in the rabbit foot's magic virtues is an old English superstition, engrafted, no doubt, by early immigrant owners upon the slave mind. Pepys in his diary tells of owning a rabbit's foot, and of his joy at finding out that its lack of power arose from the fact that it had but a single joint. One of his fine gentleman acquaintances owned a foot with two joints, and by the bare handling of it, Mr. Pepys found his rheumatism very much bettered. A little later, when he had duly supplied himself with the two-jointed rabbit's foot, he writes that he was never so well or so prosperous in his life, " and do lay it all to the workings of a proper foot." Books of necromancy also give directions for cutting the foot and curing it so as to enhance its magic strength. A foot cut from a live rabbit, and the rabbit allowed afterward to hop away, was

accounted peculiarly powerful, but dangerous in that if the rabbit died of the hurt, his familiar spirit would be apt to visit the torture the poor creature had suffered upon the torturer. Curing, well packed in herbs, over the smoke from green tansy stalks, was also essential. But if the curer talked with a red-haired woman, met a brindled cow in the road, or found a black cat following him, he was advised to throw away the rabbit's foot, or, better still, bury it, give himself a sulphur purge, and not even think of magic until a moon later.

The big snow went as it came. White Oaks awoke to find the wind sitting south, the sky hazily overcast, and sluices running wherever there was a sloping track. By noon the ground began to peep out on the hillsides, by night it was raining, a warm flood. Next day, only remnant ragged drift-blotches, and the sodden green of the wheat fields remained to tell the tale of the snow.

## Clearing

## Chapter X



HAT with fences, firewood, outbuildings, and plantbeds, Major Baker had to clear more or less land each season. But it was only now and again he had a big new ground,

such as the one which ran out into the old pigeon-roost. The pigeon-roost was part of his late purchase, lying upon the edge of it away from the flat-woods. That is to say, along the hills bounding the creek valley, lower down than White Oaks itself. The soil was quick and lively, especially upon the benches. The hills were high, and sloped gradually half way down, then fell in a sharp ramp to broad almost level spaces, at whose outer edges the slopes began anew.

The hills had been well-timbered — before the pigeons came. A hurricane could hardly have served the trees worse. Looking the ground over thirty years after the last wing had fluttered away, Joe could realize in large measure all his father told him. The first pigeons, said the Major, came always early in October, flying in, in wide wavering lines, two or three birds deep, exactly as the feeble remnant of them now flew over each autumn. Those first birds also flew over or away. They were here to-day, to-morrow even, and gone the day after. Everybody knew, though, that they were harbingers of the flocks—sent, it might be, to spy out the land.

The flocks came ten days later. They flew in clouds, darkening the whole heavens for hours at a time, and filling the world with the rushing noise of wings. A single flock was estimated to be five miles broad, forty miles long, and a mile deep from top to bottom.\* Between flocks there was a little clear space. The sky showed through it as through a rift in thick clouds. The rifts proved that in flight, the pigeons kept always to the broad wavering formation. Though now and then a line bellied or sank, the head of one flock never stretched over into the tail of the flock ahead. They did not sail as do birds of prey -hawks, vultures, eagles - nor flap their wings like wild fowl. Instead, their wings had a quick convulsive motion, half flutter,

<sup>\*</sup> Wilson's estimate.

half shudder. Notwithstanding, they were swifter than the wind and as tireless. The feeding grounds lay hundreds of miles away, yet the flocks went out to them at morning and came back from them at night.

The going was like the moving of an army. Flock after flock rose separately, poised itself and skimmed away, one flock always waiting until another was clear of the roost. and females flew and roosted apart. Male flocks flew highest in the air. There were feeding grounds both sides of the roost. The flocks flew north or south according to the wind, choosing always to go as near down wind as they could. Thus it happened people living north or south of the roost often did not see a flying pigeon for days --- then all at once found the sky dark and thick with them, coming or going, from the earliest dawn to long after A flock never came home until it was full fed - consequently those going out late, or lighting upon ground already stripped, sometimes flew into the roost about midnight. Some few hundred sluggard stragglers, and lame or wounded birds, fed in the woods and fields close about the roost, going out in half dozens, but flying even then in the common wavering line.

At night the pigeon-roost was a sight to see. It stretched several miles — all along the hills

indeed, until the creek ran into the mill stream. The trees were tall - beeches, poplars, red and Spanish oaks, white oaks, hickories, tulip poplars and occasional maples. They were big also, with sturdy branches spreading so they locked well together. But the sturdiness availed nothing against the weight of the massed pigeons. The birds settled in clouds, as thick as they could stick, wherever they found a foot-Over-loaded boughs broke under them all night long. People came from far and near - at first to shoot, later simply to pick up the birds knocked down with long poles or stunned by the falling boughs. The ground was covered with pigeon guano, feathers, and dead birds, although hogs ranged underneath the trees, and ate fat pigeons until even they could eat no more.

One single shot up amid the laden branches brought down half a cart load of pigeons. The man who dared to move about the roost with a lighted lantern was swamped, almost crushed indeed by the weight of birds flying to the light. Pigeon-getters — hunters they could not be called — went in bands. One carried the light, the rest walked each side and knocked down the birds as they flew. Soon the smell became something indescribable, — even stronger and more reeking than the odor of genuine Peruvian guano. The pigeons themselves fled from it

at the first hint of spring. Toward the end of March they flew away to their breedingplace, among some river hills lying thirty miles to north.

That put them in Kentucky - White Oaks lies in a border county. The nesting-place was, in soil and timber, a counterpart of the But though the pigeons began leaving the roost, which was less than an hour's flight away, in late March, they got to the breedingplace around the tenth of April. Where they had dawdled nobody ever found out. Once settled, nesting went on apace. The nests were mere huddles of sticks, like those of the wood dove, with no architecture, lining, nor much of anything else. Each nest had two eggs in Sometimes there were as many as a thousand in one tree. Males and females took turns in brooding, also in feeding the young. The feeding was with "pigeon's milk" as in the case of tame pigeons. Pigeon's milk, be it understood, is a whitish creamy stuff secreted in the crops of the parent birds from partly digested food, and forced into the open mouths of their young. The young thrive magically upon it. The wild pigeon squabs were so fat, people knocked them down in loads, and rendered the fat to use for butter or, in conjunction with wax and tallow, for candle-making.

The pigeons reared two broods, or even three

if the first nest came to grief. Yet they left the nesting-place about the last of May, flying away straight north, and leaving the trees of it stripped, broken, dying, worse used, if possible, than the timber of the roost. The young went in flocks by themselves, flying just below the tops of the trees, the hen pigeons flew just above the tree-tops, and the cocks highest of all - so high indeed that sometimes they were out of sight. Major Baker had gone several times to see the nesting-place, also to watch the flocks setting out, as it was popularly believed, for the North Pole. Nobody in close neighborhood regretted their going. Regret came in later falls, when the flocks got fewer and smaller, then, all at once, did not come at all.

Word comes that the wild pigeons, flying down across Mexico, have found asylum in the wilds of South America. Whether the word be true or false, their migration is a mystery, only partly explicable by the narrowing of their feeding-grounds. They live largely upon beech mast, wild rice, wild oats, and the seed of other coarse grasses growing along natural meadows. They also eat postoak mast, hazel nuts, dried grapes, and wild peas, foraging at a pinch in winter wheat fields, and among standing cornstalks. Much clearing has turned their favorite ranges, the

beechlands of the Ohio, Tennessee, and Cumberland River valleys, into cultivated fields. Still, the clearing was not done in a wink—and it was thus the birds vanished, as a feature of the year. Every fall, a close watcher sees flocks of a hundred or two, flurry in the well-known wavering line across a morning or evening sky.

A pigeon roost untouched bears to this day the mark of the birds. Two years of roosting killed all the big trees. Guano of any kind thickly applied kills every sort of vege-Beside this embarrassment of soilriches, the trees had lost so many limbs, they had nowhere to bud and put out saving leaves. Trees forking a little way up had been riven in two by the weight of the pigeon mass. Undergrowth had been killed, or trampled Sometimes even fire had added to the desolation. A lantern overset found plenty of inflammable stuff to start a lively burning. Thunderstorms -- pocket cyclones -are plenty in Tennessee, particularly along the creek and river valleys. They soon blew down the dead trees or twisted them off two yards above ground and flung the trunks crossand-pile among the sickly, struggling saplings which alone survived. The saplings had not been branchy enough to serve as roosts, when there were big trees handy.

Time, unhasting, unresting, changes all that - and always for the better. Sun, wind, and rain are alchemists, always working to repair nature's hurts. When they have done their appointed work, leaching out, mixing through, giving back some part to the air, some other part to the clay, a pigeon-roost becomes the richest of all virgin soil. The saplings grow magically into trees, not tall and stately like the dead trees, but gnarled and sturdily spreading. In between, the quick earth laughs into matted jungle - thicker, thornier, than even the jungle which springs up in a hurricane tract to feed upon the decaying trunks of the windfalls. The jungle is starred all through its green gloom with the rarest and richest of the wild flowers. Lady-slippers grow rank there, so do the fairy white plumes of rattleweed, and the constellations of whiter August Cross-vine runs riot, creeping and lilies. climbing to reach the sunlight, clinging fast with clutching roots from each joint of the stalk, then flinging down cataracts of flamehued blossoms and mottled waxen leaves. Bindweed also stars the thickets all over. There are never humblebees enough to sip all its purple-spotted trumpets. Scarlet trumpetflower grows there, too, so does the wild buckwheat in the edges of sunny spaces. And wherever a dead trunk stands fast, or a walnut grows, the Virginia creeper mantles it from root to tip, in a rippling vesture of living green. In September when the walnut turns yellow, and the creeper bright crimson, a tree so clothed looks to have come from fairyland. All outside there is the flittery yellow; all underneath, a spectral tree-skeleton of glowing crimson.

Something else glowed there, even more eerily, upon damp nights of summer and fall. The dead trees had turned to fox-fire. fire is the pale, peculiar phosphorescence evolved from slowly rotting wood. It showed in lines and blurs and blotches all under the thickets, where a tree-trunk lay half imbedded in the black soil. If sunshine was let in upon the mouldering wood, it dried to a brown crumbling tinder, which the countryside folk called spunk, or punk. True Tennessee punk is a dried toadstool, but the brown wood had most of its properties, catching fire if the least spark fell upon it, and smouldering in and in till the heart was a red glowing ember. in pioneer days it was almost as essential to keep your punk dry as your powder. Fires were kindled by striking sparks over it. Hunters struck the sparks with the flint locks of their rifles, snapping the unloaded weapons over the punk. When a household lost seed-fire, if there was no neighbor close enough to make borrowing a chunk handy, a flint, often an Indian arrow-head, a pocket-knife, and the ever faithful punk, soon had a roaring blaze. You may still hear about the countryside as a hurried visitor goes after the briefest possible stay: "You must have come after a chunk of fire." Thus there is recalled the time when all the household economy lagged until the chunk of fire came.

Because the old pigeon-roost was so quick and so rich, Major Baker resolved to keep the most part of it for plantbeds, clearing only a few acres of it at the back side of his new ground. Fine plant beds are the first essential of a good tobacco crop. The Major knew there was money in raising fine tobacco, and loss in raising poor trashy stuff. So he always burned land a plenty, beginning in December, if the ground was dry, and finishing in March. Sometimes early-sown plants do best, sometimes late-sown ones. Dan said truly, Marse Majer he always did hit de season, 'case he took an' tooked hit bofe comin' an' gwine. Beds are burned either by piling or pulling. Either way it is hard work but picturesque. In piling, the whole space to be burned over is raked clean of leaves, then grubbed and covered thickly first with brush, then with green sticks three inches through, and on top of them with logs from six inches

to a foot in diameter. It is then set fire all along the windward side, and in a dry time with plenty of wind burns through like a charm. But the dry time, the brisk wind, no man can command. Pulling, which is independent of them, is the tobacco-planter's recourse. For pulling you build a fire upon clean, grubbed ground, as long as the bed is to be, and four feet across. When it has burned the ground hard enough, which is known by the light black soil turning a rich dull-red hue, the burners, armed with long handled hooks, cut from the woods round about, pull the burning logs over upon a fresh clear space, pile more logs, sticks, chips, and leaves upon them there, and let them burn afresh. They are pulled again and again until the bed is finished. A bed ten yards square requires at least ten cords of wood. Sometimes Major Baker burned beds fifty yards square. Nearly always he had plants to give away.

What virtue lies in the burning, the wisest among the wise men cannot say. But the virtue of it is beyond dispute. In pulling, streaks between fires are often insufficiently burned, and there the tobacco plants grow yellow and stunted, crisping up at the hint of drought, while those upon the well-burned ground are green and vigorous, the very moral and pattern of healthy growth. Tobacco

seeds are small - so small and fine they feel like a pinch of dust between the fingers. They are mixed thoroughly through a panful of light ashy earth before sowing. The bed is dug or harrowed very fine, then marked in three-foot spaces lengthwise. The sower goes up and down by the marks, then across, sowing seed a second time. After that the bed is tramped or rolled smooth, and covered with flat brush - commonly dogwood brush. In the old days the brush-covering sufficed. Now the beds have a mystery to equal that of the burning. It is a hopping mystery — a bug, called the flea-bug, which is about as big as the head of a pin, but owns an appetite many sizes larger. He swarms over the plant beds just as the tiny plants peep through, and eats them off close to the ground, thus ending their infant careers. But for some occult reason the fleabug will not live under cover. So the remedy for him is to cover your beds - usually with spreads of cheese-cloth stretched over edgewise planks, enclosing the beds. The cheesecloth helps the plants as much as it hurts the bug. It keeps in warmth and moisture, and keeps out the ravagers. Plants underneath it grow big enough for setting out at least three weeks earlier than if left without it.

Since tobacco requires four months to grow and ripen, early setting is worth a good deal. Still the very best tobacco is not the earliest. Early planting is ready to cut in August. It is the hot days and cool drenching dews of September which make the rich, heavy shipping leaf, full of gum and oil and aromatic strength. Still it is seldom worth while to set a field after the middle of June, though with a good season — that is, plenty of rain for setting out — in new ground even Fourth-of-July planting may result in a fine crop. Late or early, stocky "rose plants" with leaves coming out all round, go a long way toward making a good crop — wherefore Major Baker aimed always to have rose plants and a great plenty of them.

There were twenty acres in the new ground; yet after all the trees were down, and before working up the timber began, you could run nearly all over it, and never touch earth, by simply jumping from one log or stump to another. It was a long, north-looking hill slope. North slopes are always richest and best worth clearing — possibly because even summer sunshine strikes over, rather than upon them, and thus the dead leaves stay moist and rot, likewise the dead twigs and fallen trunks. Neither is the earth underneath the leaves baked and made lifeless, as happens upon slopes facing south. While a real cracking drought does land nearly as much good as a deep hard freeze,

sun-baking with wettings in between makes it thin and slow and cloddy after years of cultivation.

Joe loved the woods, yet the clearing fascinated him. He did not work there regularly, though for five minutes or so he could chop with the best of the men. It took mighty and well-seasoned muscle to ply an ax day after day. The black fellows knew all the art and mystery of clearing — which is not nearly so much a haphazard performance as at first blush it looks to be. Here upon the hillside they could look up a tree before setting ax to it, and tell which way it would fall if it fell of its own mass. They could also throw it any way that pleased them - up hill, or down, or across. Further they could judge by the bark pretty well how the timber of a standing oak would run. Rough, warty bark was a sure sign of brash timber, never splitting true, but with an eating cleavage. Where the outer bark cracked in what looked like flights of little stair-steps, the timber was warped - so much so sometimes that in the ten feet of a rail-cut, the fibers made half a turn from top to bottom. Crinkly crisscross patches of bark meant wind-shakes underneath. Sometimes in a big board-tree, the wind-shake ran only through one eighth or one quarter of the trunk. More commonly it spoiled a whole half. Occasionally the cut next the stump was of no value, with the cuts further up fair. But it was only occasionally. The negroes had a very true saying: "Whut start at de butt, don't end tell hit come ter de lap."

Burning the woods away back accounted for much of the brash timber. The oaks were but saplings then, thin enough in bark to be badly scorched on the windward side where the fire drove against them. Since the other side escaped with no more than a singeing, they lived on, and throve after a fashion, but always kept the fire-scar at the heart. Very often they began rotting there, and the rot spread in and upward, though still they grew fairly and looked green and thrifty outside. When the axes chopped into the rotten wood, the axmen said the tree was "doated at de heart." Joe smiled to hear them. He knew where doated came from -it was a corruption of dotard. His books had told him how the oaks in the royal forests were reckoned, so many thousand sound, so many hundred dotard - that is, failing through age or infirmity. As in case of the rabbit's foot superstition, slaves had caught the word from English owners and passed it down to their free descendants. It was the same with lap, meaning the branches of a tree. He knew it came from lop. He had read how "lop, top,

and crop" were, in the old days often forest perquisites of royal favorites. Lop, top, and crop, meant what could be cut away yet still leave ship timber for the king's or the queen's navy. Shipbuilders had complained that the lop was stretched to include much wood "excellently crooked, and fit for ship-knees." So the lop was strictly the big branches, as the top was the whole upper tip which came down when the tree was pollarded — that is to say, topped, or derived of its poll, or head.

Often sitting upon the stump of a boardtree, and counting its two hundred odd rings, each marking a year's growth, Joe let himself dream of the oaks a thousand years old, whose destruction had been the prime end of the great Spanish Armada. Spain aimed to conquer England by destroying her real hearts of oak. What availed it to burn or sink a fleet, so long as those pestilent islanders had timber to build two ships for every one sunk? He thought too of Sarah Jennings, Ranger of Windsor Forest, scowling, scuffling, scraping every possible penny for the enrichment of her husband, the scapegrace John Churchill, first Duke of Marlborough; also of the knight who held a forest upon condition of "giving the king's majesty one snowball any day in the year it may be asked"; and of the baronet whose tenure hinged upon furnishing a pair

of white greyhounds in silver couple, "for the king's majesty's hunting, when the king's

majesty shall require it."

"Crop" he knew was the brush, which, bound into fagots, made so large a part of the fuel in that old time. Sometimes he speculated as to how many loads of fagots the brush burned upon this one new ground would make. There were big piles of it everywhere except around the plant beds. There it had been already burned. brush piles indeed was the first step toward clearing, as making log piles was nearly the very last. Before a tree fell, the undergrowth was all cut and flung in heaps. Thus there was better room to throw the trees, and the wood-wagons got about easier, not to name better space for working in the laps when the trees came down. Brush from the laps of course went upon the piles first formed. Burning them was very great fun. It was done always before log-rolling began, generally toward sunset of a windy early March day. The leaves were raked back a little way around each heap - then a blazing chunk tossed in to windward did the rest. The blaze sputtered and smouldered, sending up a smother of thick smoke, yellow-white at first, but swiftly darkening, and bursting a little later into licking blue flame. The little dry twigs fed it -

soon it was strong enough, hot enough to gnaw through the stoutest stems. If they were hickory stems they writhed in the fire like things of life. Hickory brush keeps its sap, long after oak and poplar are bone-dry. A pile of it will hardly catch unless weighted, or thickly underlaid with finer brush. But once well afire it makes a magnificent flame, red and leaping, and full at the heart of twisting fiery serpents. Any big brush heap, indeed, in a decent burning wind, makes a beautiful fire, the flames leap and flicker, and blow off in long fading sheets, or snap and curl like

whip-lashes, twenty feet in air.

Joe wondered no little what his English ancestors would have thought of the log heaps. Plenty of folks in Tennessee said Major Baker was dreadfully extravagant of timber, wasting so much good wood a little bit more work would save. Some of them said it to the Major himself. He only smiled in The Major kept books with his plantation by a curious sort of double entry. Whatever increased the strength and heart of a field struck him in the light of a good investment, and nobody knew better than he that the more log heaps were burned upon a piece of fresh land, the longer it would bring big crops without manure, let the season be wet or dry. Besides, since his firewood cost

him nothing beyond cutting and hauling, there would be real extravagance in hiring men to split up knots and forks and burls. Rail and board and stave timber, indeed whatever was fair and straight-riving, he always had worked up, even if he had no present need of rails or boards or staves.

Log-rolling was a great day - so great it is easy to see how the name of it has got into politics with something of sinister implication. Big logs are best moved by the strength of many men. Hence, for log-rolling you ask help of your neighbors, of course returning the help in kind when they have logs to roll. Fifty men black and white came to the rolling in the big new ground. They chose out captains, as boys do when playing ball. There was need for literal captaining. Log-rolling requires headwork no less than handwork. Sleight even more than strength best solves its problems of weight and mass. The four captains were all veterans of many heaps, as well as men of mighty muscle. Their men were armed with hand-sticks, for the most part of sassafras or hickory, six feet long, three inches through, and trimmed tapering at each end, so they might be held with a desperate grip.

There was edged rivalry between the crews. There was honor in putting up the first heap, more honor in putting up the most heaps, most honor of all in walking off with a log that had proved too heavy, or two unhandy for another crew. Dan and his crew won this crowning glory three times at the big log-rolling, although they were working against older heads and heavier bodies. White men and black worked amicably elbow to elbow, but Joe felt a distinct thrill of personal triumph when Dan's men picked up and almost ran with a big chunky black-jack burl that had downed old man Shack and his crew.

Where the logs lay close they were really rolled, often over improvised pole tramways, along which they sped impelled by heaves of the hand-sticks. Carrying was quicker, and in most cases somewhat easier. Two men worked to a stick - thus there were six sticks to a crew. After the captain had duly squinted up and down the log, making sure in his own mind how it would roll and lie when lifted, everybody got down beside it, and surged against it, until it was loosened in its bed. Then the sticks were placed end on, equidistant along the length of it. More surging rolled it over upon them, then each man bent, gripped his end of the stick, waited the captain's word, and when he got it, rose upward, slowly, steadily, bringing the stick with him, and incidentally his share of log. Lifting thus equally,

they kept the log steady. If one man's grip had failed, it might have meant serious hurt for the rest. A log inert upon the sticks is one thing, and a log rolling and bounding off them, gaining impetus and momentum as it moves, very much another. Every hand holding, when the log comes well above the knees, the men walk off with it, moving in time as though locked. When they come to the log pile, all those upon one side lay their stick-ends firmly upon the foundation log, or that one which it is best the new log shall hug throughout the burning. Then the captain shouts interrogatively: "All the good men out?" But he waits for no answer before crying: "Let her roll!" At the word the men who still hold stick ends raise them with a little shout, heave the log in place, then rush off to find another.

Simple as it looks, there is art in building log piles. Some men are born with it, just as some other men are born to other arts. If old man Shack had not been so lazy he would have been the king of log-rollers, indeed of all manner of timber-workers. He had the nicest eye, the quickest judgment as to how and where a stick would fit best. Logs, if they are to burn freely must be so placed they will roll together, not apart in the burning. There was something behind the old man's braggart

boast that "ef them other fellers did put up the mostest logs at er rollin', them fellers o' his'n put theirn up bestest, though they picked an' choosed the wustest ones ter tote. Furdermore"—thus the old man—"them thar piles stayed put up,—ye didn't never have ter go an' waste yer breath an' strenth, achunkin' 'em up, an' a-chunkin' 'em up. Ef hit wa'n't that he jest natchully hated ter seem like he gredged lab'rin' men er little frolic, he'd take the Majer's log-rollin' by contrac'—but thar! workin' folks had little 'nough fun."

They had fun at Major Baker's log-rolling, in spite of the hard work. They feasted too, in a manner befitting even their noble appetites. Good feeding was a cardinal article of faith at White Oaks, whether it had to do with men, horses, cattle, dogs, or land.

## The Horse

## Chapter XI



ENIUS is rare, common sense rarer still, horse sense rarest of all. Horse sense is a two-edged phrase. The pity of it that men never know horses intuitively, unerringly as horses know

men! No less than a poet, a horseman must be born, and get fine making afterward. The proportion of horsemen to horse masters is about as one to five thousand, yet only the horseman born and made can fitly master a creature so worthy and so wise.

Horse sense upon both sides is really knowledge distilled by time and love into wisdom. Upon the human side the first essential of it is negative — you must simply not know how to be afraid of anything on four hoofs. Next comes generous kindness, next justice strongly tempered with mercy. Horses are very wise. They understand when punishment comes because of their own airs and tempers, also when it is the vent of uncontrolled nerves, savage tremors, or suppressed rage provoked in other quarters. And they have very long memories. Indeed they have throughout an almighty lot of human nature. They have a language, intelligible between themselves, and also to those persons they admit to anything like intimacy. They are moreover social, something waggish and tremendously conventional.

There is something infinitely pathetic in the neighing of a solitary horse. It is long, shrill, oft-repeated, rising at the end to a keen tremulous crescendo, full of appeal. The neigh of welcome, on the other hand, either to a comrade, chance or well-known, or to the home gate, or the stall, is almost merry, full of chuckling cadences, altogether a voicing of content. A horse used to company, left alone either in the stall or at grass, neighs almost continuously for ten minutes, then waits a bit, listening for possible answers. At pasture, jumping-out is likely. A mare's mating call is a keen, thin, tremulous treble, the most piercing note in all the spring chorus. The stallion's is deep and virile, clear, yet touched at bottom with a growling bass. The gelding's neigh is clearest of all. Horse voices vary almost as much as human voices do. When

they call one to another about the pasture, it is no feat at all for one who knows, to locate each by the call. Under pain horses are stoic. But if the pain reaches the height of mortal agony they scream pitifully, heartrendingly. Indeed a horse's scream, either of agony or rage, is a haunting and memorable sound.

A neigh is in most minds the same thing as a whinny — in Tennessee vernacular, a whicker - yet there can scarcely be two sounds more distinct. The neigh rises throughout until it is ear-piercing as a trumpet-note at the climax. The whinny is soft, almost gurgling, loudest at the beginning, and at the end a flickering, husky tremolo. Possibly the difference is best expressed thus: the neigh is articulate, uttered through an open mouth, and varied or prolonged to the limit of breath; the whinny is inarticulate, coming out of the nose above shut lips, and blurred after the manner of nasal sound. As the whinny is provincially a whicker, so is the neigh a nicker. In both cases the words are palpably efforts to imitate the sound.

Brood mares whinny calls to their foals when the youngsters are in plain sight, and neigh to them when they have wandered afar, or are in hiding. Nine tenths of foals are dropped between mid-April and mid-June. A horse's age is reckoned unofficially by

"grasses," that is by springs - and officially from the first of January — hence the importance of an early birthday. Hence too September is almost universally the weaning time. Then the mares neigh plaintive distress for a week at least, and much longer if their young have not been taken clean out of sight and hearing. Weaning is, in fact, impossible so long as dam and foal can hear and answer each other. Some weaning-times one must have regard to the wind. If it blows scent strongly from the mares to the foals, or vice versa, though they may be grazing a mile apart, the weaning will be tedious and troublesome. Mares kept thus apart for six weeks, and their udders thoroughly dried, have been brought back to their milk in a very little while by the vigorous sucking and nuzzling of the youngsters when they were again brought together.

Things stranger still sometimes come to pass in horse breeding. With every lot of weanlings breeders graze a big mare, preferably a barren mare, one that has never thrown a foal, yet is sound and kind. She wears a tinkly bell, and the young creatures become her abject slaves, grazing round about her, lying down when she lies down, and rising up when she rises. To shift pastures, or get them into the big stable, it is only necessary

to take the bell — they follow like dogs. A stampede is impossible unless the bell mare takes fright. Back in the days of droving, when horses went to market upon their own legs, instead of riding in stock cars, the bell mare always led, and was also always the point of attack for horse thieves. If they could shoot her rider, and make off with her, the drove came tumbling pell-mell after, even if they had to swim rivers or breast mountains to reach her. Contrariwise, if the bell escaped, it was hardly worth while to capture part of the drove — the animals would break out, and go back in search of her, if they were halted anywhere within a hundred miles.

Bell mares are thus herd stepmothers. Some of them have been known to become suckling mothers, although they had never thrown foals of their own. In several cases they have been pulled down almost to skeletons, by the incessant sucking of a dozen strong young mouths. One mare at least did her best to drive away all but one of the sucklers. That one she mothered in really touching fashion, licking it while it sucked, and feeding after it, no matter which way it went. She also whinnied to it with the true mothernote — which is unlike any other whinny, softer, yet keener. Indeed, this special foal, which curiously enough belonged to the bell

mare's full sister, could never be weaned from its foster mother, but kept sucking until it was two years old, and had finally to be sold on account of the propensity. The rogue must have had an extra milk tooth, since his new owner sold him to a drover because he had got in a way of jumping into the clover pasture and sucking every drop of milk from a fine Jersey cow.

He was a peculiar-colored beast - pigeonblue, with pure flaxen mane and tail. drover sold him in the far south. Nothing was known of him for a matter of ten years. Then one morning, in the pasture where he had grazed with his foster-mother and his fellows, his first owner found the wreck and remnant of a horse, blind in one eye, scarred all over, so thin every bone showed through, and so lame he could scarcely hobble upon feet worn all round to the quick. But there were flaxen hairs still waving in his shred of tail and along his worn mane, and the coat between the scars was pigeon blue, faded it is true, but still unmistakable. Homing instinct, the marvellous possession of all the brute creation, had brought the poor creature, aged and worn out before his time, back to his birthplace. Neither his career nor his wanderings were ever traced, but from the condition of his feet and the varied flotsam tangled in his

hair, it was plain he had made a long journey, and a hard one, impelled by that mysterious force which stirs at the touch of spring to send all dumb things home.

A homing beast does not follow the track by which he was taken away. Instead he strikes straight across - as the crow flies. No matter how badly a rider may be lost, if his beast is well wonted to either startingplace or destination, all he needs do is to drop rein, and let the beast take him somewhere. At first the beast may be a little uncertain. He turns his head, paws the least bit, sniffs now this side, now that, shifts from one foot to another in leading as he walks about, seems to listen intently, then all at once neighs shrill and long and strikes a course, maybe fetching a compass to do it. After it is struck, he keeps straight on. If a fence or stream traverses his way, he appears to know unerringly whether to go around it to right or to left, or what ford to choose. He will choose a ford in preference to plunging in the stream at an untouched place, if there is a ford within a mile. When at last he scents home - commonly a mile before it is in sight, he stretches his neck to the utmost and gives his keenest, most triumphant neigh.

"An Arab is no Arab away from the desert." The proverb is an exact statement of

fact. Even more than men, horses are the product of environment. Running blood, otherwise thoroughbred blood, had its beginnings in Arabs and Turks bred amid desert stretches, without bush or brake to stint their rattling gallops. Trotting blood contrariwise traces most directly to Barbs or Barbary horses, bred in rough and ragged country, where sweeping gallops are impossible, and speed is attainable only at the trot. The Barb blood has of course been largely reinforced by that of the thoroughbred; further trotting action is not unknown among descendants of even the Godolphin Arabian. Indeed Mambrino, sire of Messenger, the corner-stone of trotting pedigrees, had more than one cross of that prepotent strain.

If all flesh is grass, how much more all horseflesh? Bone from animals bred in the open, running upon grass and feeding upon it solely, though smaller and slenderer, weighs more, section for section, than bone from animals reared within stable walls. It is the bone, the coat, the hair which make up what is known as quality, and distinguish the thoroughbred from the common cold-blooded stock. A straw can hardly be thrust within the hollow of a thoroughbred or Arab or Barb bone, yet a forefinger will go inside that in the bone of a Conestoga, or Clydesdale, or Perche-

ron, or his derivative, the Canadian. Moreover, the big breeds have coarse bones and spongy as to texture. Oriental horses and thoroughbreds have bone compact as ivory and well-nigh as hard as flint.

A thoroughbred wears a satin coat set off with mane and tail of silk. A cart horse, be he never so glossy, has hair coarse to the touch, with mane and tail of hemp. A sightly beast, a pattern of his kind, the leading factor until lately in the world's development, the cart horse is yet no match, weight for weight, even in his own special province, for the thoroughbred, compact of fire and stay, ivory bone, and whipcord muscle. A blood horse will break down, even kill, two common ones, yet be sound and serviceable afterward. Witness Omar Pacha, the Turk, who travelled ninety miles without check, in time of the Crimean War to carry news of a Russian repulse, and lived to a good old age after, though his rider died of sheer exhaustion. Witness also the Nedjed breed, derived from Mahomet's own favorite mare, and still kept religiously by the Imaun of Muscat, whose warriors think nothing of a hundred and twenty miles without once drawing rein, if horsed with these, "The Daughters of the Stars."

"Oats!" wrote Dr. Samuel Johnson: "A

grain fed in England to horses, in Scotland to men." The thrust was well countered by an indignant Scot: "An' whar will ye find sic horses — an' sic men?" Beyond question, if horses needs must decline and fall to grain, oats should be the grain. Shelled oats and stemmed fodder - that is to say, dry corn blades with the midrib removed - made up the feed of the famous four-mile racing stars of the early American turf. Corn is both heating and stiffening, to say nothing of producing "big-head," unless fed with the nicest judgment, particularly in animals not fully developed. Enthusiasts firm in the faith of blue grass and blue blood, indeed regard corn as little less than poison. They keep separate summer and winter pastures for brood stock. The winter pastures lie untouched until October, and the grass in them cures to the finest natural hay. Still the cured grass is not the dependence through the winter. Beneath the matted blanket of it, young grass pushes up fresh and vigorous. It is nothing for the brood mares or the young things in their separate pastures, to paw aside the brown overlay, nibbling the choicest bits of it, and crop the rich sweet blue-green blades below.

Blue grass in full bloom, growing upon the richest land, comes well above the knee. By the height of it, indeed, one wise in land lore can gauge accurately the producing power of its seat. It thrives only upon deep limestone clays, with plenty of humus mixed through, and fat black feeding pebbles here and there. Rainfall has something to do with the growth of the grass. In a dry season the best blue-grass pastures stand but little beyond mid-leg high. Conversely a very damp and forcing season may make the grass upon second or even third rate land, come level with the knee. Whatever the height of it, in flower it is the most beautiful of all grasses. Not only are the blossoms delicately tinted in greenish blue, a sort of pastel shade, but the blades as well have a blue bloom. They are thick and fine always, even when the grass grows in sparse, scattered clumps. Close-cropped blue-grass turf is like velvet, especially if it has been cropped and trampled for fifty years.

The fine feathery heads stand so thick and even, when they toss in the wind it is as though a misty gray-green cloud had come bodily to earth, and was rippling under foot. Sometimes, but very rarely, blue grass is mowed. Stock breeders think it better in many ways to let it cure upon the stools. Ripening seed is, they admit, exhausting both to the land and the grass. Notwithstanding,

seeds thus ripened are not taken away from the soil. They sow themselves evenly over it, thus perpetuating pasturage no matter what the weather. Further, the mulch of dried grass saves from drought and from freezes, conserves from sun-killing, and in time decays to furnish anew vegetable mould. Altogether, there is a mighty fine case to be made for the practice, and though "much might be said on the other side," experience and theory jump so well together, the practice is likely to endure a long time.

· A horse's muzzle is as sensitive and nearly as deft as a blind man's finger tips. It serves him indeed in place of fingers, also for things where fingers would avail nothing. The muzzle is as soft as velvet --- especially upon the upper lip. When a horse plunges his muzzle into a heaped manger and scours all about the bottom of it, it is not through greed but through caution. He is searching out inequalities - knot, splinter, snag, or nail, so he may not break his teeth upon them nor hurt his tongue and lips. He eats, turning his head first on one side then the other, licking up a mess of ground feed, or grinding sturdily himself any sort of whole grain, as he grinds hay and grass. Thus he records his age, up to nine years in his mouth. After nine, his teeth are so smooth all over the

crown he may be any age or none. Jockeying dealers sometimes file the smooth crowns to simulate the ridges and corners of youth. In the case of a blood horse that is impossible. The stud book forbids any man thus to take freakish liberties with Father Time.

Colt-teeth are shed progressively, as are human milk-teeth. Normally the shedding is finished at five years old, when the horse is reckoned "aged." Occasionally colt-teeth stay in the mouth up to seven years. Then they are commonly so discolored and decayed country farriers call them "wolf's teeth" and insist that unless they are at once pulled the horse owning them will go blind. Five years is the common period of growth, though exceptional horses may grow as well as cut teeth, up to the age of seven.

One of the most famous and deliberate among turf frauds was foiled by the fact that a horse's jaw thus records his age. Epsom's famous Derby is a stake exclusively for three-year-olds. A long time back, two four-year-olds were unfairly entered for it, and one of them, Running Rein, had the luck to come first, with Orlando, a game three-year-old, second. Some way a whiff of the fraud got about. Orlando's owner claimed the stake and went to law to prove his claim. The frightened conspirators killed and buried

Leander, the non-winning four-year-old, taking the precaution to remove his under-jaw, spirited away Running Rein, and sent his nominal owner into hiding. When the case was called, the judge could do nothing but give Orlando the stake. He said, in giving it, Running Rein was the one really material witness, and his absence was proof positive of fraud.

A horse feels not only his manger but his bed, more especially the bed of delight upon which he flings himself to wallow. His joy in wallowing is unmistakable, though the reason for the act even the wisest among horsemen has not yet found out. It cannot be classed with motions involuntary but necessary, such as stretching and yawning. Upon waking, horses both yawn and stretch, also after rising from long lying in the shade. The yawn is open-mouthed, with a strong out-breath, the stretching much like a cat's stretching, with the four legs stiffly extended and the back slightly arched. In rare instances the back is deeply saddled - that is, swayed down. Sometimes also one hind leg is held straight out, and kicked swiftly two or three times. But all this is solemn and serious work, if something languid at times. Wallowing makes a horse, both spiritually and actually, of another color.

Nothing equals a wallow on freshly ploughed ground. To obtain it, the quietest animal will often jump or throw down a lawful fence - that is, one ten rails high, either locked or stake-and-ridered. Such jumping is the privilege of elegant leisure. A working animal, horse or mule, wallows when and how he can, the minute he is stripped of gear and turned loose. But whatever his haste, he always puts his muzzle upon the ground, and turns slowly around, feeling all over his prospective bed. If he finds a stone, or snag, or brush stout enough to hurt, he moves on and feels over a fresh place. He does not even neglect the feeling over upon his favorite ploughland, though after the first wallow, when he rises evidently thrilling through and through from the delicious contact with Mother Earth, he often flings himself recklessly down a yard or so from his first bed, after the merest perfunctory whirl-about, head down, tail up.

After wallowing three or four times on one side, he turns himself full on his spine, and rocks rather than rolls for half a minute, all four feet playing convulsively in air. Then he whips over, wallows the other side well, maybe rolls again, gets up, humps himself, puts his head down, and shakes, shakes, until there is a cloud of dust or fine mud-flecks all

round about. There are of course idiosyncrasies in wallowing. Some horses wallow three times a day, others three times a week. Some likewise get up and down half a dozen times before they are satisfied, while others find that one long, strong roll suffices. However that may be, in getting up, all of them rise first upon the fore feet, setting the hoofs firm and full on earth before lifting the quarters. Getting up from sleep, or even from rest, it is just the other way. The quarters are raised first, not full height, but squatting so as to about equal the height of the fore legs at the knees. When the fore hand is up on the knees the quarters rise all the way then it is a simple matter of flexing the fore legs to stand upright.

Horses learn very quickly how to flip up an easy gate latch with the flexible, almost prehensile, upper lip; also to unpin a stall door with it, or to jar down draw bars. They reach under fences with it to pull out apples lying just inside, and dexterously stretch it for the sweet, untainted grass growing in shelter of thorny brush in a closely cropped stretch of grazing ground. In horses, as in men, it is the mouth which is truly expressive—helped out, it is undeniable, in the horse's case, by ears that not only hear everything, but say a great deal. An angry or vicious horse

comes at you open-mouthed, the picture of fury, his teeth bare and gleaming, nostrils wide, eyes rolling-red, ears laid close to the head. Batted ears indeed are the danger signal. Mares with foals at foot, especially very young foals, keep their ears batted all the while, in sign of war to the teeth. Nor do many of them hesitate to attack whatever comes closer than they think proper. Other horses, cattle, dogs, men, even their own familiar grooms, all are objects of suspicion.

Not without reason. Working horses, mules, and barren mares, all will chase and maltreat very young foals, biting them, trampling them savagely underfoot, and killing them if permitted. Brood mares rarely join in such attacks. Sometimes a mare late in foaling or which has lost a colt, tries to steal another mare's foal, and thus brings on a battle royal. Mares are indeed throughout the breeding season, of a temper so uncertain they bear watching and a great plenty of it. After grazing peacefully side by side for weeks, they may engage in a melley whose cause nobody knows, and fight, kicking, screaming, biting, rearing, lashing out with the fore legs, until half the combatants are seriously, even mortally disabled. Yet if separated before serious harm is done, once the mad fit is past, the fighters call to each other disconsolately, and whinny

recognition as one or the other passes the

fence, or goes along the highway.

A foal's first coat is thick and roughish, and never true in color. It begins to be shed at two months old - then the little bay beast may turn out a chestnut, the ash-yellow one black or bay, the black-coat very dark gray. These false first coats sunburn readily to a sort of muddy uniformity. Milk-white horses, which are about the rarest of all, are whiteskinned from the first, though the hair is a sort of dull foxy yellow. White hairs in the false coat prophesy a roan nag. White, or rather pink, nostrils augur a light coat hereafter. White marks, as stars, snips, white stockings, blazes, and skewbalds, exist from the first, and persist, never varying from the shape they showed at foaling. Dapples come out with the true coat. Four sevenths of all foals develop bay coats. The percentage would be larger but for the increase of Norman and Percheron stock, which is very largely gray and chestnut. Among thoroughbreds, grays are rarest - especially among winning thoroughbreds, yet grays are many among Arabs, and chestnuts rarest and most highly prized. Roan is a coat the Arabs do not know. held to be a sign of much mixed blood, yet is plenty among English thoroughbreds, and not unknown, though unfavored, among American blood stock. Gray horses, even the darkest iron-grays and silver-roans, become white with advancing years, or else grow flea-bitten all over. Flea-bites, be it understood, are little reddish-black spots sprinkled thickly through the white coat. Like a hog's, a horse's epidermis is colored to match the hairs growing on it. The colored skin extending underneath white hairs often makes shaded edges to the white marks. A white star is a lucky mark, so is one white hind foot. A star and snip prefigures speed and kindliness. A violent blaze, or a skewbald, especially upon a long Roman-nosed head, bids you beware. A symmetrical blaze along with a tapering muzzle, is a good mark. The very worst mark of all is four white feet. If the four white feet run up to the knees in white stockings, and are backed up by great height, very high withers, and a bald white face, they are the mark of Turcoman blood. Horses shed their winter coats betwixt March and May, according to climate and condition. At grass the new coats get sadly sunburned you can hardly tell the most ebon-black, or glowing bay from washy sorrel. In September they put on new, heavy winter coats, sleek and full colored. In cities, and among fine folk, the winter coats are snipped off with clipping machines, so the horses may shine as in spring, and the place of the clipped coat is taken by clumsy blankets.

A horse has naturally these gaits: walk, trot, canter - an easy slow gallop - full gallop, and full run. Tennessee saddle stock owns besides, these fancy saddle gaits: running walk, pace, fox trot, single-foot, and rack. A welltrained horse whips from one to another at a touch on rein or mane, or the mere snap of the rider's fingers. For an all-day ride the fox trot is incomparably the best and easiest both to horse and rider. Women prefer the pace for journeys of a mile or two. Five miles at the pace, unrelieved by any other gait, will tire anybody. The single foot, in which the horse appears to have all but one leg in air, is oddly enough the easiest of all gaits to sit well. As for "rising to the trot" - or even riding at a trot, unless mounted upon a beast which could do nothing but trot - anybody undertaking it in Tennessee would be reckoned sadly lacking both in horse sense and regard for his own Trotting is there recognized as comfort. solely a harness gait. Pacing is also a harness gait, but for the race track rather than road driving, although Tennessee has developed the most famous pacing blood in the world.

For pure joy of motion nothing matches

the full sweeping gallop. The one drawback is that neither horse nor rider can stand it for very many miles. For a brief pleasure jaunt, over good roads, the canter is unequalled. In any gait it is curious what a difference it makes whether the horse leads with his right fore foot, or his left. Leading means stepping out with it first. Well-gaited horses are broken to lead with either and to change from one to the other upon the instant, at the snap of the whip. A saddle horse that overreaches, - that is steps further with the hind foot than with the fore one corresponding to it, is always risky. The danger lies in treading upon his own heels, and thus tangling himself so as to stumble or even fall. Crossing the fore feet in motion is even more dangerous. With such action the gallop is always the safest gait, as the horse in galloping moves both fore feet simultaneously. A perfect foot is round, hollow underneath, well open at the heel, but not spraddling, with a clean, live-looking hoof, and soft, elastic skin above the heel, reaching to the fetlocks. A horse goes easiest and freest unshod, but over hard roads or rocky ones shoeing is essential.

To judge of a horse's temper and spirit, look at his eye. If it shows much white, let him pass, though he be otherwise the sum and pattern of equine perfection. White-rimmed eyes with an upward roll, are the hall-mark of stubborn viciousness. The owner of them is sly, sneaking, undependable. He will act lamb for a fortnight to get the chance of bucking his rider off where the ground is hardest, or rearing where rearing is most disquieting. The white eye is as bad as the "unlucky hairs" which grow, if they grow at all, a little above the eye-socket. They are longer and coarser than the hairs of the coat. Arabs so dread them they will not ask even a foreigner more than half price for a beast showing them.

Ears tell of intelligence or conversely of stupidity. They should be thin, wide at the bottom, pointed, neither large nor small, with few long hairs inside. Ears set too high or too close together prefigure lack of stamina and level-headedness. Ears wide apart, not too low nor too high, with the forehead arching the least bit between, stand for sense, vigilant courage, and a fine equable mind. Either at grass or upon the road, good horses keep one ear laid back, one pointing forward. Horses both see and hear very far. Negroes believe firmly that in the dark they see and walk around ghosts. However that may be, they certainly see the road plain, through what seems thick murk to human eyes.

Unthinking people do not distinguish be-

tween the herd and the drove. The drove is a number of live beasts, gathered and driven off to sale or shipment. A herd is likewise a number of live beasts, but driven only casually, as from pasture to pasture, and feeding and being used together. In every herd of horses there is a leader, usually a mare. She it is who breaks in or out and runs prancing and nickering about, with the rest tumbling at her heels. She has memory, also judgment. In trying a fence, she always selects first the spot, if such a spot there is, where she has made a breach before. If she finds it inconveniently strengthened she goes pacing up and down the whole length of the fence, setting her breast against each panel, at each third or fourth one rising in tentative measuring half-leaps. When she finds a weak panel, or one that gives to her impulse, she takes the jump standing, then neighs a call to the rest. They come on the dead run, and jump through the gap she has made. Unless a gap has been made, or there is a space of fence enticingly low and bare of hedgerow growth, very few horses will venture upon a running leap over it.

There is a slight anarchist leaven in everything on four hoofs. Horses, mules, hogs, cattle, even sheep, appear to regard a fence as a challenge—something they are in honor bound to go over, under or through. The horses

at White Oaks sometimes jumped out in pure tricksy wantonness, ran maybe ten miles, in a circuit of the plantation, then jumped in again, exactly where they jumped out. They had all even an unreasonable beast could wish. sweet grass, fair water, shade in plenty, salt at will. They had also room and to spare for racing on their own account. There were above a hundred acres in native blue grass, cut in two with a stone wall, and snipped at the ends of the big fields, by snug, stoutly fenced paddocks. The summer pasture lay upland. When rain was imminent it saw some fine and true-run races. Whip-Lash, Major Baker's own saddle mare, was queen of the herd. She gave the racing signal. First she snorted very loud, then, when every head was raised, and every eye upon her, neighed, long and low, put her head down, and began to run against the wind. As the others got in motion, she wheeled, and ran down wind, as hard as she could leg it. The others lagged a bit until she came to the turn, waiting to see if she meant to break out, or race at home. If she swept on inside the fence, they streamed after her at their very best speed. For a round she held everything safe — then something younger forged ahead. Sometimes it was Pipe-Stem, sometimes Light-Foot, sometimes the chestnut Sir Galahad, but

three removes in descent from the immortal Lexington. Light-Foot had the heels — she could leave any of the rest yards behind, but she was not so stout-hearted as the colts. In the beginning everything ran. It was laughable to see the big brood mares lumbering prankily forward, looking over the shoulder at their foals. For a little way the brood mares could go with the best, but mother-love hampered them inconveniently.

One after another dropped out, and went to grazing, until maybe there were but three contenders left. Then came the real pinch. It was marvellous to see the blood things, ungirthed, unreined, unbitted, without whip or spur, lie down to it, stretching till they almost lay flat on earth, eyes flaming, ears laid back, straining nerve and sinew to the uttermost in big greyhound leaps. Sometimes these last contenders went twice about at that heartbreaking pace. Oftener it lasted but through a half-round. If one or the other drew two clear lengths ahead he checked, flung up his head, turned it sidewise, and nickered shrill triumph all across the field. Then he went off at a dainty mincing run, head and tail in air, punctuating his running with little sidewise jumps. The lifted head and tail are enormously characteristic of horseflesh after a quick triumph — so characteristic, in fact, scrub racers, known otherwise as quarter horses, have earned the cant name of "cocktails."

It is a far cry from quarter-racing to the mixed drink accepted the world over as America's glorious contribution to the things that slake a thirst. Notwithstanding they hang together. Quarter-racing was the favorite sport of tavern gentry in days before the Revolution. Almost any horse with four legs and a tail, could be patched and pampered to show a decent quarter of a mile, though he might not be able to go a yard beyond. Thus "cocktails" abounded; thus also mine hostess at any fair inn knew all about them. one of these hostesses who mixed for Washington and his staff, drinks of excellent Hollands savored and flavored with home-brewed cordials. "Drink!" she said, nodding her head, and setting her arms akimbo, over flowered short-gown and decent stuff petticoat: "Drink lads! Lord 't will make ye all feel as sassy as a cock-tail." At least, thus saith tradition. The indisputable fact is: the name, however given, has stuck.

Cock-tails and their like have given further to common speech the picturesquely expressive phrase "a wild goose chase." It is in all mouths, yet not one in a million knows that the original wild-goose chase was a scrub-race in which the leading rider set the course, and aimed to make it include as many desperate, dangerous and cramped leaps as possible. Whoever rode it, keeping forty yards ahead, funking at no fence however stiff, won whatever stake was up. Wild goose chasing was popular in England and America throughout the eighteenth century. Ireland clung to it even after that date. Rough sport, spiced with danger, it is yet a question if it was more risky than polo, or as much so as the steeplechasing still in high favor.

Herd horses gossip together like a whole sewing society. Joe and Patsy were sure of that when they saw Whip-Lash standing in the shade, her head close to two or three others, tossing it lightly now and then, mumbling the lips faintly, and making little gurgling noises. Sometimes if strange horses passed on the mill road Whip-Lash neighed a greeting. If the stranger answered, the rest neighed back. But if the stranger neighed first, the reply was apt to be a chorus of whinnies, but they were non-committal, not warm and welcoming, such as greeted Joe when he went to them with the salt basket on his arm. At the sound of either wheels or hoofs, the herd, especially the brood mares, pricked up ears, listening intently for half a minute. Then if nothing developed out of the common they fell again to grazing. But

a led horse, a bunch of cattle, a wagon loaded with live stock, or big bright red farm machinery, even a mare with a young colt at her side, drew the whole herd to the fence, there to run up and down, peering curiously across, and sometimes showing a wavering inclination to break out.

Whip-Lash was a fine hunter, but her master had not always time to follow the hounds. If she heard them in stall she began to neigh and paw; if running out, she went after them, no matter what fences stood in the way. kept close upon the dogs, but not too close, and was commonly in at the death. After it, she came home, but not with the guilty and appealing air she wore upon returning from a purposeless breaking out. Instead her head was high - she whinnied when she came to the gate, and stood patiently for it to be opened, though it would have been nothing for her to jump over it. Once inside she looked expectantly at her master, whisking her tail nattily, as who should say: "You see, I am keeping up our credit, no matter how much trouble it may be."

Her master never scolded her. He knew what is bred in the bone is bound to come out in the flesh, also in the spirit. Whip-Lash came of a famous hunting strain. Neither did he scold her when she got lonesome and ran away. It was not often she had the home paddock all to herself, but whenever she did, she went over the fence and off for a good gossip with old man Shack's flea-bitten gray beast. The gray was disreputable in looks as his owner — still he had had wide experience — he had been withthe old man throughout his last four moves, so no doubt knew many very entertaining things to tell.

Horses have very sensitive palates. If accustomed to soft water, as of a pond or cistern, they will cross running limestone water without touching it, even when very thirsty. In grazing they also discriminate, always choosing the short, soft grass of the hillsides rather than the lush growth of the swales and bottoms. They love sweet things, and very bitter ones. When they break into an orchard, they will feed upon ripe fruit, though green may be much plentier, and take sweet apples before sour ones, even riper and mellower. dearly love the bark upon peach-boughs in the second year of growth, also the bark upon poplar poles, and the fibrous inner bark of red oak. Apple bark they will strip off in big mouthfuls with their sharp cutting teeth, but spit out as soon as they begin fairly to taste it. They browse fairly well, but care little for any wooded forage after the budded stage. work they will nip almost any green thing within reach, though they may drop the nibble as soon as cropped.

A shy colt is much easier broken than a tame one. A pet colt, in fact, nearly always turns out to be a stubborn and ill-tempered They are the hardest of all to break. Patsy insisted that was because the breakers did not reason with them, as she herself did with Light-Foot, but she could not bring her father round to her way of seeing it. So she was forced to content herself with salting the pretty fellows, and teaching them to come at her whistle to the fence and eat apples from her hand. Sometimes that made Light-Foot jealous enough to charge down upon the knot of youngsters and chase them away. Light-Foot was the least bit a vixen, but Patsy could catch her anywhere - unless the mare saw the Then she ran, tossing up contemptuous heels, though after a while she let herself be cornered, caught, and bridled.

## The Oaks

## Chapter XII



VERY manner of green wood is a true land of faery, but for subtilely varied charm the oak wood leads all. Oaks of even the same sort are individual to the degree of idiosyncrasy. How

much more so then the lithe white oak against the brash and burly red, the canny post oak compared to the splendid unthrift of the black? Oaks all, in bark, in leaf, in fruit, in manner of growth, touch, taste, smell, color, they are as unlike one to another as to all other trees.

By their seat you may know them. Post oak pre-empts thin gravelly ridges, and disputes swampy flats with the water oak, and swamp hickory, though you find it intermingled wherever oaks have root. White oak, on the other hand, loves a deep soil, warm, light, well-drained, sloping, and full of pebbles.

So does the bastard white oak, whose pedigree is blurred with a post oak cross. The wonder is that blossoming, as the oaks do before the leaves come out, with such richness of tasselled fringes on every twig, such clouds of pollen as the south winds shake out of the fringes, there are any oaks still true to name, growing up after the manner of their parent stems with never a blot on the scutcheon. The secret lies most likely in the fact that the fringes are wholly staminate - the young ovules lie so snugly scaled about. The curlfringes come out every March in undiminished numbers. Whether or no the mast hits depends not upon them, but upon the number of pistillate flowers. Sometimes that number is very small - at others a hard frost destroys the ovules. In either case there is no mast worth mention. A squirrel even may have to travel a league between the findings of his breakfast and his dinner.

A clown among oaks is the black-jack, the genuine scrub oak. The trunk is so crooked woodsmen vow it takes it half an hour after it has been cut down to find out how it can lie still. It is knottier than it is crooked, with very thick bark roughly clotted all over. As to grain, it has none worth the name. A rail or lath split from it with infinite pains might serve for a giant's corkscrew. As it grows,

small branches develop all round, standing stiffly out at almost exact right angles. They break through the bark as water shoots, instead of growing naturally by partition of the trunk proper. After a few years they die, but do not break off and have done with it. Instead they shed twigs, bark, and sap-wood, yet persist as to the heart, standing out all along the trunk like bluntish iron pegs.

Black-jack rots quicker than any other oak, and burns more slowly. Tradition says that in the day of slaves, one particularly griping master promised his black people: "Christmas as long as the back-log lasted." Then the wood-choppers laid their heads together, sought out the biggest, gnarliest black-jack upon the place, cut a back-log from it, soaked the log in the pond for a week, then rolled it in triumph to the great house, and laid it behind the firedogs. There it hissed and sputtered and smouldered through a fortnight — until two days after Twelfth Night, to be exact - in spite of all the hickory sticks and oak logs, and kindling truck, and dry chips, the master of the great house piled upon it. A grim man, withal waggish, he saw the humor of the situation, and rewarded his black people for thus outwitting him, with a fine supper and an extra stiff dram all round.

The black-jack is twice a paradox. It grows upon the very richest land fringing about the barrens, which are a sort of glorified prairie, yet belying their fatness by its starveling size and scant coarse mast. The leaves are likewise coarse, clumsily lobed, very thick, and so varnished rain sounds upon them almost as on a roof. But when frost comes the tree is transfigured. For six weeks it wears a royal robe, a winding sheet of the richest, the most glowing ruby-red, so royal, so glowing it puts every other red to shame.

A white oak well situated is never less than beautiful, but most of all in early spring and fall. Before the curls are all down it is full of young leaves, covered all over with silver The leaves and their stalks are of the tenderest live-red. The tree shows like a huge knot of bloom upon the face of the greening wood. The young leaves grow magically. By time they are as big as rabbits' ears they begin to pale. Next day they show the most delicate silver-green. The lobes are so finely cut half grown, their shadow at midday might serve as a pattern for lace. Even when full grown they are lighter green than those of other oaks. In the fall they turn gravish crimson on the varnished upper sides, clear silver underneath.

White oak timber is the toughest and most

elastic among oaks. So elastic, indeed, that it is not well to use long beams of it, unless they are supported. Its tensile strength is enormous, but it gives so much under loads as to throw things higher out of plumb. But for bending and warping it has no equal. Old time shipbuilders swore by it — it was the very thing for sheathing hulls, flooring decks, or making handy boats. Inland timber workers in small ways also found it a godsend. They made thin tough splints from it to weave into baskets, bottom chairs, knot into muzzles, and do a hundred other things. Then from seasoned sticks of it they turned wagon spokes and felloes, to say nothing of riving pipe-staves for shipping down the river to New Orleans, whence they went further to the wine-makers of France.

Beyond that, white oak acorns are the biggest, and far and away the handsomest of all that grow in the woods. They are very long — more than an inch, set in beautiful shallow cups, finely scaled outside, and grow singly or in pairs, in extra mast years in threes, all along last year's twigs. The acorn hulls proper are a rich glossy brown, with a round orange-yellow spot at bottom, where the nut grew into the cup. The shell is thin, with a white furry lining upon the inner side. The kernel is richly yellow, inside a

transparent brown skin. It is sweetish, with a little rough tang at the last. Squirrels and hogs eat it greedily—children even do not despise it. Growing, the acorns are palegreen, the cups bright brown. At ripeness the acorns darken, and the cups lighten to a fine fawn-gray.

Oak galls are curious things, coming it is said from the stinging of an unfolding leaf by a peculiar oak-gall insect. The white oak is almost solitary in that it bears two distinguishable sorts of galls. One is round and fuzzy, as big as a guinea egg, white with red flecks all over, solid, partly edible and sweetish-sour to the taste. It grows at the end of a young shoot, with no sign of a leaf anywhere about. This is also the habit of the "devil-thumb," the gall of the black-jack. The devil-thumb is smooth, deep-green, conical, sharply pointed, and borne most plentifully by the shoots springing up around a black-jack stump. The fuzzy white oak galls are also most numerous upon such second growth. The smooth ones, which are about the size of a big marble, form underneath perfect leaves high in the top of the tree, and are seldom discovered until the leaves fall.

Description and habit fit exactly the postoak gall. In every other point the two trees are unlike. Post oak never grows tall, even in rich land. White oaks easily reach a hundred feet. White oaks are grayish pink at the heart, and have very smooth whitishbrown bark. Post oaks are rough barked, light gray on the trunks and almost white on the branches. Russet is in fact the post oak's color-note. The leaves turn yellow, then brown, and hang on well through the winter. The sapwood has a yellowish tinge through its white, and the heart is grayish yellow, with marblings of black. It is the most lasting of all wood out in the weather - hence indeed the name — post oak. Its habit of growth is branchy and round-headed, the branches spread far and droop almost to the ground wherever they have room. Post oak acorns are tiny, with shells almost black, set in the daintiest possible cups, and clustered three to six on a stalk. They are sweeter than white oak acorns, but have a stronger astringent under-tang.

The over-cup oak presents the strongest possible contrast to the post oak's fairy fruit. It bears single acorns sparsely, big lumpish brown things, spongy of hull, bitter as to kernel, but sunk in the most beautiful cups, mossed all about the edges with richly crimped brown fringe. The acorn indeed is all that differentiates the over-cup from an indiffer-

ently grown red or turkey oak. Though it loves the waterside, and is rarely found out of alluvial bounds, it does as little credit as the black-jack to the rich earth which mothers it.

The red oak is a yeoman bold, ruddy only at the heart. His leaves come out a pert, glaring green, of coarse texture and fuzzy all over. By and by the fuzz flies away, and then, for a little while, the woods roads are unbearable. The fuzz is warranted to set eyes and noses watering after the first three good whiffs. The galls are round and hollow, likewise coarsely rough, and so plentiful even half a gale sends them down in dozens. Red oak acorns are bitter, with chestnut-brown hulls deep set in light-brown cups, with, like all other acorns, the orangeyellow mark at the bottom. They have also butter-yellow kernels, which change to pinkywhite after lying on the ground all winter. The change means sprouting. The sprout comes out of the cracked hull from the blossom end, where in every sort of acorn there is a tiny knob-like point. From this point, the root creeps down, the little plumule, that will be later a stem, up. If the oaklet escapes with its life, it may have four leaves and stand as high as your hand by next fall.

Oaks should be planted acorns — never transplanted. They strike a strong taproot down, down. Transplanting destroys it. Perhaps the fact accounts for the old "gentleman's superstition" against digging up an oak, though the assigned reason was that either the planted or the planter, the tree or the man, was bound to die within a year because of the planting. A sprouting acorn may be lifted almost carelessly, dropped in the pocket, kept there all day, then planted, yet thrive afterward.

Red oaks are, as becomes yeomen, sturdily adaptable, growing branchy where they can, slim and tall where they must. They thrive upon land of every sort except swamps and sour crawfishy spots — there water oaks crowd them out. They are further quickgrowing, making thick new layers of sapwood each year, to replace the sap-layer mysteriously changed to heart. The sap is clear white, the heart richly ruddy. Both chip freely, and split still more freely. The puncheon floors, which were signs of luxurious enterprise in pioneer cabins, were almost invariably split from red oak trunks. It is the coarse grain due to free growth which makes red oak timber split so much more readily than white or post oak. The bastard white oak, which is a true white oak, except

in the darker color of its bark and the fact that its leaves are green in spring and turn yellow in the fall, splits easily, once you have it started, and with a perfectly true cleavage, although it owns the solidest, closestgrained timber of them all.

Red oak bark stands next to chestnut oak for tanning. It is also good for dyeing, furnishing either a reddish tan color, or a smoky-gray, according to whether the dye is set with copperas or alum. The inner back infused in cold water, is the sovereign'st thing for sore throats, besides a fine tonic. As to the timber the name of its uses is legion. It furnishes rails without number, house logs, sills, plates, beams, boards, staves, barn wood and firewood without end. Red oak is truly the bone and sinew of the woodlands. A health and good luck to him who either plants it or spares what is self-planted.

Turkey oak is, after a sort, the red oak's country cousin, full of family likeness, but rougher as to bark and stems and leaves, also coarser as to timber, and addicted to warty gnarls of a size and ugliness no wellbred oak should cherish. In the sapling stage, its leaves are particularly ill-lobed. That is however, true of all except Spanish oak saplings. A sapling, by the way, gets its name from the fact that it is still all sapwood, too

young to have a heart worth reckoning. Old timbermen say that the thickness of sapwood is always the same. In the merchantable tree it seems a mere skin round the heartwood, yet is really as wide across as it was when the heart was but a slender dark streak down the middle of a white stem. All real hard wood comes out of the heart. For riving, as boards, staves, tobacco sticks, and so on, the core of the heart will not answer. It is full of scars and knots, left by outgrown and overgrown branches. A tree, like a man, keeps deep in the heart ineffaceable records of every vital event. The scars, the knots, may be overgrown, buried under inches of sound, straight-grained wood, but remain just the same. Sapwood rots much sooner than heartwood - hence extra careful builders split off the sap-edge from board timber before riving it. Thus the boards are narrow, but a roof of them lasts twice as long as one of ordinary boards.

Spanish oak and black oak are close kin. Both love rich, warm land inclining to be moist; both grow very straight, and very tall, not branching considerably until well up in air. Neither is very umbrageous. The branches fork sharply instead of standing straight out or drooping. The leaves

are very finely cut - the most lacy indeed among all oak foliage. Both have grayishblack bark, thinner and less rough than the bark of red oak, and nearly always richly dappled with gray and green splotches of lichen. The main difference is in the acorns. and the color of the leaves in autumn. Black-oak acorns are longish, with blackand-brown striped shells, and set in rather shallow delicate cups. Spanish oak acorns are also in striped shells, but with deeper cups, and the deepest orange-yellow rounds at bottom. They are sweeter than those of the black oak, hence are often called "chinquapin acorns." School children nibble them, but do not choose them for weapons in an acorn battle. It is not that they are too small, but some way they are not easily shot after the manner of a marble; hence but poor ammunition.

Frost turns the black oak a rich, dull crimson, the Spanish oak, a clear, green-mottled yellow. Thus the trees, growing cheek-by-jowl, dapple gorgeously the autumn woods. Both trees are prolific in galls. The galls are practically indistinguishable, round, growing out from a fragment of leaf, smooth, bright-green, glistening, as big as the biggest glass marble, faintly crinkled over the outer surface, and hollow except for spider-webby rays

running from the green shell to a central core. The shell is very tender, turning black almost at a touch. It is edible if one has a palate for faint sweet with a touch of tannin under it. Spanish oaks rival the white oaks in producing a second sort of gall, one the size of your thumb's end, smooth, shiny, almost woody, of a mingled red and white all over. "Ink-balls," country children call them, with some show of reason. Ink can be made from them by putting in a little copperas or bluestone. Besides, the ink-balls are cousins-german to the Aleppo nut galls, that were, in the days before coaltar came to its kingdom, a great factor in making the very best black ink.

Black oak and Spanish furnish timber of the best, since, though they grow big and tall, they grow slow enough to make wood of fine close grain. The sap is cream white, the hearts ruddily dark. Both work up excellently, and when green make the very best of firewood. Seasoned, they burn too free. It may be worth while to add that green wood, though not so easy to set on fire, once it is afire, makes a hotter glow and lasts longer than dry.

Chestnut oaks did not grow upon White Oaks plantation. Joe had heard they were very plenty up in the mountains. He wondered if they were in the least like the

uncouth water oaks. The water oak has a trick of sending up twin trunks or even triple ones, beset all their length with stubby outstanding branches. Below the tops the branches are mostly dead, like those of the black-jack, only longer and hornier. The trunks are lichen-covered almost to the top. Gray-beard moss also fringes the boughs along their under sides. The moss is not a strang-ling parasite as is the moss of Mississippi swamps, still it rarely flourishes upon oaks in high condition. It may be the water oak's chosen seat, damp fenny ground, is in large part the moss's reason for being. Water oak foliage is finely cut, the leaves thin, very glossy, and of a deep green, but so sparse the tree makes no shade worth the name. It rarely bears acorns, though it blooms profusely and often sets a crop of fruit. About mid-May the acorns blast and drop. So do the galls, which, however, are few. Scattered remnant acorns are long, almost black, deeply cupped, and intensely bitter. As timber the water oak comes close to the post oak - it is hard, heavy, closegrained, lasting, ill to split, and worse to burn, but when you have built a fire of it. you may turn your mind to other things, secure of half a day's warmth.

## Fox-Hunting

## Chapter XIII



EYNARD the fox is a wise beast and cunning—still there is reasonable doubt as to some stories told of him. As, for example, how he rids himself of fleas. Tradition avouches that he goes about

thorny pastures where sheep have been robbed by thorns of wool, gathers the locks one after another until his mouth is full, then seeks out a still pool, and backs gradually into it, until he is in water, all but his eyes, nose, and mouth. Now since fleas, it is well known, cannot abide water, they run before it, and take refuge in the wool. When the last one is safe there, Reynard the fox leaps ashore, frolicly spits the wool back into the water, and gallops away, flealess and happy.

Most likely the tradition is apocryphal. But when it comes to luring foolish birds within reach, Reynard certainly does things

which give a color of possibility to the fleastory. Wild fowl - ducks and geese - are as curious as a village gossip. So are wild turkeys. Any strange sight draws them to circle about it, close and closer, peering and gabbling one to another after their various Some way Reynard knows their fashions. He takes advantage of it, by dropweakness. ping flat upon the earth and lifting his tail at short intervals to wave it furiously back and forth. If he is after wild fowl, although he hates wetting more than his feet, he sometimes plays in shallows close to the bank, splashing, and standing momently upon his hind feet, making a pretense of snapping at something high above his head. The wondering birds swim closer, and begin to chatter aloud. As he hears them Reynard plays more gently, and at last lies quite still, with only his eyes and nose above water. If the quacking and gabbling lessens he splashes again. But if the unwary flock comes within a jump of him, he makes the jump, snatches a bird by the neck, flings it over his shoulder by an adroit jerk, then runs as hard as he can. Usually he gets off scot-free - the birds are too amazed to do more than quack. But sometimes it happens that they fall upon the trickster, beak and wings, rapping him, jouncing him, trouncing him, till he is lucky if he

can drop his prey and escape with a whole skin.

Human wild fowlers have taken Reynard's example to heart. Hence decoy dogs - small, reddish, supple fellows, much like a fox in looks, which are painfully trained to swim up and down, and in and out, of creeks and marshy estuaries, the haunts of web-foot things, splash water, play up and down, and move, half swimming, half wading, in the direction of the blinds, sure that the feathered flocks are swimming after. In the vernacular this is, "toling ducks." The dogs are known familiarly as "the toler breed." The breed and the practice are said to have originated along the English broads, whence they have been brought with so much else that is English to American shallows both seaboard and inland.

When wild turkeys are the game, Reynard lies down in a drift of leaves, rolls lightly, and kicks the leaves about at first, but only moves his tail after the birds begin to approach. He is careful not to lie down to windward of them — whether because he suspects them of noses to match his own, or because he knows they generally feed down wind, nobody can say. Some ways wild turkeys are as shrewdly wary as in others they are simple. If Reynard barked ever so low, they would be off

like the wind. It is to escape him and his sort that they roost so high. The young birds leave the ground at night at three days old, and at a week can hop and flutter to perches higher than a man's head. At six weeks they go to the tree-tops as easily as the old birds. But neither old nor young perch in the highest tips. They keep under thickly netted branches and almost invariably hug the tree-trunk, thus depriving owls and night-hawks of the flying impetus necessary to a successful strike.

But they have no fear of the curious thing stirring there in the leaves, any more than they have of the fluttering red rag which sets turkeys, wild or tame, to gabbling and scolding with all their might. As the big birds run toward the leaf-stirrer they yelp and p-prutprut angrily. As with the ducks, Reynard lies quiet until they come within range. singles out a hen — he has no mind for running weighted with a gobbler - snatches her, gives a quick crunch through the head, and gallops off, dragging the carcass until he can take time to fling it over his back. In some points he is a gentleman - especially as compared with the wild-cat, or the weasel. He always kills before eating, and kills only to eat. Wild-cats eat their prev alive, rending and tearing quivering flesh until by chance they strike a truly vital part. Weasels kill from pure blood-thirst, first sucking the blood of their victims, then finishing them with a bite through the base of the brain. Reynard returns again and again to prey partly eaten. Wild-cats will not touch it—each meal demands a fresh victim. And weasels not only make fresh kills, but kill, and kill, and kill, long after they are completely gorged with blood.

A red fox sharp-set from long fasting will devour a whole goose or turkey. If occasion serves, he may kill and eat one chicken, then kill and half eat a second. But if he supped well last night, and for many nights before, hence is in generous condition, one chicken or half a goose suffices, though he may kill another and drag it home, then come back himself next night, either to finish a carcass, or to kill anew. Gray foxes are neither so big nor so rapacious as red ones. One fullgrown chicken is their limit, or a nest of field-mice, or a brace of very young rabbits. It is a mistake to think of foxes as living high upon poultry the year round. They hunt the fields as sedulously as men do, and only permit themselves to feed on things tame and fatted when their favorite wild ones are not to be had.

Gray foxes are most common in Tennes-

see, but there are regions where red ones have driven out the grays. The two sorts will not live in good fellowship and close neighborhood. All through the grass country, foxhunting is a favorite sport. There are few regular packs, but almost every place of consequence has a couple or two of hounds sometimes half a dozen couple. Couple, it may be said, used in connection with dogs and hunting, never takes a plural. The phrase hunting in couples, is wrong — it should be hunting in couple. It derives, of course, from venery when stag and boar hounds were hunted in couple — that is in pairs with a short leash between the two collars - partly by way of keeping up their courage and their cry, partly also to show how excellently equal the kennel keepers had turned them out. It takes mighty well-broke dogs to run thus, one with another, each not only afire to follow and blood the quarry, but to do it ahead of the fellow at the other end of the string.

Afield, Tennessee hounds are coupled only in name. Until twenty years back they were almost exclusively of the stout black-and-tan breed, or the stouter blue-mottled Virginia hunting strain. Latterly there is a sharp sprinkle of white-coated hounds, with black or liver or lemon spots. Black or lemon spots, or black spots turned up with lemon

around the edges, are most in favor. The spotted hounds are thought to be faster than the blacks or the blue-mottles. Certainly they are nothing like so pleasing to eye or ear. Shakespeare might have had the blue-mottles in mind when he wrote of hounds:

"With ears that sweep away the morning dew, Crook-kneed and dew-lapped like Thessalian bulls,

Slow in pursuit, but matched in mouth like bells,

Each under each,"

Since it is largely Shakespeare's English which is spoken in Tennessee, it is not surprising to find there many dogs called by the names he has made immortal. Lady, Love-Locks, Sweet-Lips, Snow-Ball, Jupiter, Juno, Remus, Romulus, each and several are favorites; along with Ring, Rattler, Black-Eye, Beauty-Spot, Dancer, Dixie, Tiger, and Top-Knot. There are others much more commonplace, but the rule of alliteration is almost invariable. No man thinks of keeping a single hound. Since he has at the least two, he gives them names that halloo well, one after the other.

Fox-hunting has left its mark indelibly on life and language. He who talks of running riot, mouths a hunting phrase. Riot is technically hare, or rabbit scent. When the pack in full cry runs off on it, it is said to run riot. It is the same with running to earth and unearthing. Under strict hunting-law, a fox going to earth - that is sheltering himself in a hole in the ground, outside the limits of the hunt, was safe for that chase. comity of huntsmen, though, he might be scared out of the earth, unearthed, and run down. He must not however, be dug out. " No spade in the hunting-field" is hunting law, fixed as that of the Medes and Persians. Neither can a fox be found out of hunt-bounds - damages will lie against the hunt so finding. Anciently the finding was unkennelling. Nowadays when the fox goes away he is said to break cover. Since he was a beast of chase, along with buck, doe, badger or brock, marten and roe, his flesh was ranked venison, although he was " a beast of stinking flight" as opposed to such "beasts of sweet flight" as the hare and the hind.

Tennessee fox-hunting is not a thing of pomp and circumstance. It turns out no gorgeous gentlemen in "pink and leathers," neither does it demand a small fortune invested in hunters. There is rarely a regular meet. Hunting begins in October, after the tobacco crop is well in the barn. Hounds and huntsmen racing through a field of ripe

tobacco would leave little merchantable leaf behind. Runs commonly begin or end in the night. Preferably they begin then. Some shrewd hard rider, maybe, feels the stir of sporting blood along toward the first cockcrow. He gets up, feeds himself and his horse, mounts, and sets out, blowing his horn as he rides, with his own dogs leaping and howling at his heels, and other dogs answering the horn, from all the neighboring farmsteads.

He is not long lonely. Men come out of every gate he passes with fresh-hounds howling delight in their wake. Still the horn sounds, still the hounds answer it, in long drawn staccato chorus. By and by the riders reach likely ground and cast off. They are well-mounted. Even the common road stock has several crosses of blood. Soil, climate, and pastures help to insure condition - further the riders each and several, and their fathers before them, have known all about horses and riding ever since they knew anything. It is not long until the hounds, running out in leaping circles upon either hand, strike the drag or cold trail, and open upon it. Every rider knows the tongue of his own hounds — the minute a challenge comes up wind, the challenger's master answers with a ringing shout, calling the hound's name.

and harking the pack after. The dogs run fast or slow according to scent and ground. If the trail is old — "faded," say the hunters — the pace is slow, as it is also if the trail runs through thickets or over stony, broken ground.

Scent will not lie on frozen ground, nor when it is dry and windy. The man who

wrote:

" A southerly wind and a cloudy sky do proclaim it a hunting morning"

had assuredly himself "gone a-hunting and catched a fox," as G. Washington, Esq., puts it. It is under a mackerelled dawn sky, with steamy mists rising up in the swales, that dogs find best, follow best, and fill the heavens with their stirring bell-mouthed chorus.

The full cry breaks out when the pack strikes the warm trail. The cold trail is simply the fox's old track, made as he ran to or fro. The warm trail is his scent as he flees before. It is known otherwise as a scent breast-high, since the dogs need not stoop to find it but pick it up as they run, from tainted herbage and reeking air. Where he has choice of a course, a fox always goes down wind; thus he can run longer, and faster — thus too the scent is blown away from his pursuers.

He makes straight for the handiest earth, but doubles before he has run a mile. A curious thing is that he will not run along a footpath, yet shows no objection to racing down a travelled road. He knows where the pastures lie, and aims to strike them in doubling, so he can weave in and out among grazing beasts, particularly sheep, or cattle, confusing the scent so much it takes a keen-nosed dog to disentangle it. But he will not go into the pasture through a gap or over a stile. He slides shadow-like through the hedge or over the wall, or worms through cracks in the fence. Hard pressed he often lies down to rest in an embattled, thorny thicket. His hairy coat protects him against thorns that tear cruelly a hound's satin skin.

A gray fox may run one mile or ten before he gives up his brush. The brush — the tail — belongs to the rider first in at the death. Next in value are "the pegs"—the fore feet — after them, the "mask"—or scalp—and lowest of all, "the pads"—that is to say, the hind feet. A fox moving about is said to be "on the pad"—a phrase familiar to many as a cant synonym for much gadding about. If the cold trail is so little cold the hounds run along it crying as they run, the hunters know the quarry is on the pad—that is to say, he has not fed himself and lain down to rest—

also that they will not be able to "jump him," but must follow a running start.

A red fox runs as long as there are men and dogs to follow. An especially game and wiry fellow may run across three counties, and break down as many packs coming in successively to chase him. It is accepted as a fact among Tennessee fox-hunters that without fresh dogs you may never hope to run down a red fellow. Notwithstanding, there is a story current there of a North Carolina pack master who went out one fine fall morning and got a big red fox afoot. The pack were all bluemottles, in the pink of condition, thin as lath, but in hard muscle, and perfect as to wind and The pack master rode a thoroughbred hunter, a son of the great Sir Archy — for all this happened in the good old, very old days. He rode with the nicest judgment, sparing his dogs and his mount all he might. The hunt began about daylight in the extreme eastern edge of a county. At sundown, in spite of doubles, it crept over the lines of a second county into a third lying westerly. All but three dogs had turned tail, and were slinking home, hobbling on worn-out feet. The master followed for two hours longer guided by the baying of the three staunch ones ahead. Then he too gave up the chase, blew his horn in recall, and sought shelter for the night. But

no dogs came back to the horn, neither did he find any trace of them in the morning. As he rode homeward he overtook two dogs, the leaders of the pack. A big bitch was still missing. The pack master gave her up for lost. But six months later, chancing to go still further toward the west, he found his blue-mottle Lady, safe and much cherished in the hands of another pack master, who told him how, about such a date, his dogs had broken out in chase of a spent and draggled red fox, that could barely keep in front of a bitch as spent and draggled, which had yet no notion of This was about daylight. dently the fox had run all night after running all day. It was sixty odd miles, as the crow flies, from find to kill, with doubles to make it easily more than half as far again. At the end Lady's feet were raw and bleeding - for a week she could do no more than crawl. She came to herself as to looks, and bred many fine whelps, but was never thereafter up to a hard run.

Joe loved that story best of all his father told. His great-grandfather, you see, had been Lady's master. Naturally, Joe was himself an ardent fox-hunter, ready to ride and jump with the best of them. He loved, too, to read in his books all the niceties of the sport — though he was wise enough to keep

strictly to himself much of what he read there. The horns, the whoops, the yelling set his blood on fire. When he went to a reunion of the veterans and heard the "rebel vell" from the lips of the very men who made it famous, he said to Patsy: "I know how that started. When our men went out to fight, they just had to holler like they had hollered when they went hunting." Bigger and more distinguished listeners have noted the same fact - for fact it is - but Joe and Patsy did not know it. That wild keen crying, utterly defiant of vowels and consonants, stirred them as speech or martial music could never do. When the yelling rose and fell, and then leaped suddenly as high as the sky, at sight of a riderless horse, a battle standard tattered until it was little more than a staff, tears rained down Patsy's white cheeks, and though Joe clinched his hands and breathed very hard, all the world grew blurred and dim for at least a minute.

The gorgeous tallyho's name is another of the things due to fox-hunting. "Tallyho!" is the cry when Reynard is sighted, as "Stole away!" means that he has gone off unseen. Tallyho is a corruption or contraction of the Norman-French taillis hors—"out of the thicket." After the cry came horn-blowing. Thus, when coaches were set up upon the

public roads, with horns to blow at the stages, they came likewise to be known as tallyho coaches, and later as simply tallyhos.

Dogs will not trail a she fox while she carries young. She foxes are properly vixens. Like mother possums, they have no tolerance for their mates in the den while the cubs are very small, though after a fortnight or so the mate is welcome, and does his full share of the feeding. Sometimes there are but two cubs in a litter; occasionally there are six. They are pretty creatures, sleek and dark, with spots all over their velvet coats, not lighter, but looking as though the velvet had been crushed so as to throw back the light at a different angle. The den is usually among rocks - any dry small cave, but a big hollow tree convenient to good feeding-ground is a great temptation. Foxes will kill and carry off young pigs, young lambs, and even attack a very young calf, - this, however, in the event of game becoming scarce. Rabbits, and every sort of bird, especially game birds, are very much more to their mind.

They also eat moles, mice, and such small deer, besides nuts, berries, grapes, and even grain. Captive they grow very fond of corn bread, also of sweets, particularly honey. Some woodsmen even say that they despoil the humblebee's grass-nest and suck the

honey he stores there in what looks like a cluster of waxen grapes. Fox cubs, which are littered in early spring, are full grown by October. They are frolic creatures, always rolling each other over or tumbling about the backs of indulgent parents. They come boldly out of the den before they are even steady upon their legs, and lie blinking in the sun or spatting with dainty paws at the bits of leaf the winds blow over.

Old or young, foxes drink delicately. They will wade a considerable creek to slake thirst at the coldest spring within reach. Once well rid of family cares even the sedate mother fox is no more sedate. She sits in the sun upon a hillside playing with her tail, scolding and barking saucily at all the forest folk in sight. Sometimes she plants herself upon a rock jutting over a glassy pool, and surveys her own image in the water, licking her lips the while, and smoothing her coat with every mark of self-satisfaction. While suckling she lets herself go. At all other times her coat is spick and span. But she is far from a neat housekeeper. Possibly that is the reason that she has half a dozen caves of refuge all through the late summer and fall — also that she never rears the litter of successive years in the same den. She will scratch out a hole in a place exactly to her

liking, but much prefers to be spared that labor. Altogether she is a shrill-voiced and shrewish entity, withal somewhat blood-thirsty. But, as Joe said, what else could you expect of a creature hunted ever since creation began?

## The Cow

## Chapter XIV



HE earth hath in it the virtue of all herbs." Thus saith an ancient worthy. No doubt he had in mind the quick spring earth, washed clean by penitential floods, poignantly alive

with the livening of the frost. Even the smell of it is vital—especially waterside earth. As you inhale it you cease to marvel at the forwardness of waterside growth. Trees of every sort there are half in leaf when their kin-folk upland are barely budded. As for the low things, shrubby alders and slim honey-dew trees, they stir before the swallow dares even to dream of flight and take earlier than March winds with their beauty.

The honey-dew tree is hardly a tree at all, seldom gaining a height of fifteen feet. The bark is smoothish and silver-gray, the

stems inclined to curves, the leaves like those of a hickory, only less finished and of coarser cells. Against the memory of the leaves, the blossoms are anachronistic they are so fine, so delicate, so rarely scented. They grow in long sprays that recall the sprays of a white star-flowered orchid, with their golden eyes, and crimson flecks at the base of each petal. They come out all over the tree, while it is bare of leaves, clothing it in beauty as of the starry night. Sometimes the blooming is so rathe, a quick sleet falls upon it — then indeed is the tree a fairy spectacle. It does not grow plentifully, even at the waterside, and very rarely ever awav from it.

The groundlings — windflowers, wild flax, wild violets, harebells, larkspur and running fern, push up as the snow melts. So does the grass. Blue grass haunts and clings to the light earth of waste spaces along the creek channels. Nimble Will grows with it, and in the wettest earth, low branchy clumps of a dwarf reed. Occasionally there are rushes, but the muskrats give account of them, serving them as, later on, they will serve the young corn in the bottoms. Just as the corn-stalks are ready to tassel, the muskrats gnaw them down, drag them to the water, and float them upstream or down to their

favorite feeding-places. The feeding-place is commonly a bare rock. The muskrat sits up on it, with a bit of rush or young corn stalk between his paws, peels and eats it, much as a child peels and eats a roasted sweet potato.

Still cattle do not miss the rushes — there is so very much else. White Oaks cattle never ran out, except in the early spring. Trampling ruins the thickest and best established sward if the ground underneath is like a wet sponge. It is a waste, withal dangerous, to graze clover until the early heads are well in blossom. That usually comes to pass between the first and the middle of May. Even then it is unsafe to turn cattle upon it until the dew is well off, or indeed for longer than an hour of grazing, if they are just off dry feed, hence sharp set for green.

Cattle, like sheep, like all the ruminants in fact, have no teeth in the front of the upper jaw. They crop and browse by pressing grass and buds against their sharp cutting lower teeth, with the upper lip and the tongue. The cropping is then rolled into morsels—cuds—and swallowed without chewing. The cuds go down into an outer stomach, whence they are raised to be chewed at leisure. Clover too young, too damp, or too greedily swallowed, is apt to ferment and

produce bloating. That is to say, in fermenting it sets free quantities of gas - then the poor beast swells violently, falls, rolls, gets up again, lows, staggers, falls, and dies, unless help comes, and quickly. If the bloating is discovered in time, it may be checked by running the beasts hard, until they are ready to drop. Drenches sometimes avail, but the sure if painful remedy is the trocar - a sharp spike-like knife with which to pierce the animal's side just back of the right foreshoulder. It must go deep enough to cut the outer stomach, yet leave the inner one intact; further it must be so skilfully directed it will miss a vital part. Major Baker thought prevention ever so much better than such cure. So his cattle ranged for six weeks up and down the creek valley, getting their fill of tender watery green things which could not possibly do them harm.

Cattle browse by nature and graze by opportunity. A richly budded thicket tempts them more than the tenderest sweet grass. They nip off not only buds but lengths of slender stem as well. When the buds grow to young shoots, the tongue comes into play. A cow's tongue is not only her curry-comb, — long, flexile, muscular, and viscid, it can draw into her mouth herbage beyond reach

and capacity of the mouth itself. Sometimes when an especially tempting, especially well-leafed stalk hangs just out of reach, Sis Cow rears awkwardly, licks her tongue around it, and holds it until she comes down on all fours, so has a purchase to snatch it off.

Shrubs abounded in the creek valley, so did grassy banks, and flats set thick with May-apples. These the cattle nipped if they came upon them just as the leaves were pushing through, folded like fairy umbrellas of shot silk, green and crimson. If the umbrella escaped to unfold as flat roundnotched pale-green leaves, with waxen applescented blossoms set singly upon the stalks underneath, the beasts did no more than trample them down. It was the same with the pawpaw thickets - budded tips were greedily snatched, although they came out later than the most. But after the curious blackish-red blooms opened, such tips as remained were safe against browsing. Pawpaw blossoms like those of the May-apple, breathe an odor reminiscent of the ripe fruit, which possibly is not to the ruminant mind and nostrils.

There was an old field or two along the creek. Pioneer settlers hugged the wooded streamsides, thus assuring themselves fuel and water, though the barrens and the farther

prairies invited with land all but ready for the plough. The bottoms were mostly still in cultivation, but some upland stretches lay out, and were swarded over with blue grass, battling for root-hold against the ever-present sedge. It was not so unequal a battle as it looked. If the sedge was strong and flinty, with feather-winged seed, the blue grass had stay to match the best thorough-bred that ever grazed on it. Moreover, it throve under trampling, as sedge could not do. Between them they managed to make the old fields the assembly-place of cattle for miles and miles about.

One of the old fields had big gnarled apple trees dotted over half of it. They stood, some of them, four-square, and all of them in such manner you could see they were the remnant of orchard rows. They did not bear much fruit, and what did form was sour and apt to mildew; but, for all that, they bloomed royally as certain as the spring came round. They had wide-spread drooping branches, marked all along the under edge, as high as cattle could reach, with dead twigs killed by continuous cropping. Above that the round heads were half-globes of netted stems and leaves, so thick no sunray pierced through even at the hottest high noon. Cattle came to lie in the shade,

chewing the cud contentedly, and flicking away chance flies with lazy flourishes of the tail tip. There was a path from the creek to almost every tree. Cattle, indeed, are as great path-makers as hogs or ants. They walk in single file, one treading almost upon the heels of the other. In every herd, however small, there is a queen. Commonly it is the bell cow. In the old field there was of course disputed supremacy. Three bell cows sometimes chewed the cud of peace in the shade of a single tree. More commonly there was a bell cow to a tree, monarch of all she surveyed, within its circle of shadow. When she rose up, the rest obediently followed her example; when she browsed, they also browsed; when she turned her head, nose upward, sniffed, lowed, and began the march home, her companions followed in her footsteps. Outlanders also laid a course for their own proper pens.

Sometimes, when grazing was lush and extra plenty, the home-going began about four o'clock. Oftener sundown was the starting hour. For a while the going was slow—slow enough to nip grass and swinging bushes in passing. But as dusk thickened, the leader was apt to break into a furious running, which set her bell wildly jangling, and brought the herd after her at speed, low-

ing, and crowding one upon another, in place of keeping the proper orderly rank. Then the black milk-maids waiting in the cow-pens nodded as they heard the bell jangling, and said to the calf-minders: "Ah, ha! Old Sis Bell Cow comin' home a-gilpin! Reckon she sees ha'nts out dar in the woods." Since the milk-maids were wholly unlettered and had never heard of John Gilpin, it is at least a tenable supposition that gilpin, an old English word for rapid motion, was chosen by Cowper as an emblematic name for his hero of the fast and furious ride.

In the farmlands a calf's weaning age is indefinite; it runs from six months to two years. At each milking the calves suckled. If there are cows a plenty, a young calf gets two teats - that is, all the milk in them, besides sucking the other two, until the froth ropes from his mouth. Let alone, he will hang on to the first teat seized, until milk no longer flows freely into his mouth, then change to the others, one after another, and at last go back to the first, sucking it till it looks like a dry wrinkled whiffet, then hunching vigorously to make the last drops of cream come down. Cows can and do hold up their milk. To do it, they stand with the backbone slightly arched, the feet braced and squarely under them, instead of

spread out behind and before. In the udder, as in the pail, cream always rises to the top. As fast as the milk is secreted, specific gravity begins to work, setting the fats of it above the watery parts. This is the reason close stripping is so essential to big butter-yields. It is also the reason that, as the calves get old enough to eat grass, they are suckled all round — that is to say, have their mouths pulled quickly from teat to teat, so as to draw away the low milk, and leave the cream for the pail.

Sis Cow does not stomach this robbery of her calf. She knows intuitively how much more nourishing and heartening is her cream than mere milk. So, when milking proper begins, at first she gives down freely enough, then all at once the flow checks - milk as she may, the milker gets but a faint white frothy trickle. Then it is strategy meets strategy. The calf, which has been pulled off and either roped or turned outside the cow-pen, is fetched back and allowed to suck a bit. Sis Cow spreads her feet, moos content, and licks her baby, seeming to thrill happily at his vigorous hunchings. In a twinkle he is dragged off, and there is the milker, quart-cup in hand, intent to fill it with the precious strippings, and save them for her churn. Plain milk, she holds, is plenty rich enough for drinking, either by children or calves.

There were thickets round about the old field of the apple trees and skirting woods beyond. That made it a favorite place for cows to drop and hide their calves. They stole away from the herd to some sequestered spot, were invisible for twenty-four hours, then came pacing back to graze with the rest. Since wild hogs sometimes came into the woods, it was the part of wisdom to hunt the calves and bring them home as soon as possible. Joe and Patsy nearly always went with Black Mammy upon such expeditions. They also rode out to drive up the cows whenever they got in the way of coming late to the pen. Pipe-Stem and Light-Foot both knew how to drive cattle without hurting them, and enjoyed the wheeling, the twisting, the gallops to head the herd off, just a little bit more than even their riders. But the calf hunting was done afoot, with Watch for guide, philosopher, and friend.

Watch could easily have smelled out the little hidden beast, but there was no need for it. The minute the cow caught sight of the big dog, she charged down upon him with lowered horn and angry puffs of breath. If she had mooed, a low peculiar moo, every hoof and horn within hearing would have

come to her help. If Watch had been alone, she would have sounded this rallyingcall. Human company changed his presence from a menace to an irritation. Watch met the charge by dropping behind Joe, not slinking, but simply effacing himself until there was need of action. Black Mammy soothed the cow, fed her a little bran with gunpowder mixed through it, and while the beast ate, tried to get her hand upon the swollen udder. With cows broken to the pail that was easy. Heifers, just coming in, backed away from her, sometimes with brandished horns. Then there was nothing for it but to find the calf and drive it home with the mother. Unless a cow, especially a young cow, is milked clean soon after calving, the milk will clot, cake, set up fevers, and spoil the udder - particularly if she gets her fill of succulent green food.

Mammy went on with her gang toward the likeliest thickets, looking over her shoulder as she walked, and changing her course until she saw the cow begin to run after. Then she kept straight ahead, and set Watch to snuffing at leaves and brush. Instantly the cow began to run, lowing as she ran. And then out from some brush clump or tuft of sedge there started a calf, a saucy fellow, bright-eyed, with a rich velvety coat, dazzling

white if it had white anywhere about it, royally red, or spotted to vie with Joseph's coat of old. He stood stiffly upright for a breath, staring about him, then curled his tail over his back and dashed to meet his dam, who at once cuddled him under her chin, lowered her horns, and brandished them if Watch so much as looked at her, but after the dog was ordered home, suffered herself to be driven slowly to the pen, with her baby trotting at her side.

In milking her, the first flow was rather sticky, and of a deep cheesy yellow. "Beasly milk," Black Mammy called it. Joe listened to her and smiled. Beasly seemed to him a corruption of beastings, the old English name for such a flow. He smiled too to see how careful Mammy was that none of the first flow should fall upon the ground. She believed firmly that to let it fall there and dry in would dry up the cow's milk very shortly, and make her ever after unprofitable. She had faith too that by pouring the milk all along the backbone, rubbing it in, making the sign of a cross with it over the shoulders, and mumbling inarticulately while all this went on, she made it certain that the cow could not be "witched," that she would not kick over the milk-pail, nor spoil her milk by feeding upon poison oak, known locally as cow-itch.

Milk-giving is a habit, founded upon nature and predisposition. A young cow of the finest milking strain, will soon give only what her calf can suck, if the calf is permitted to do the milking. White Oaks cows were milked regularly, and stripped very clean from the day they came in, but until the calves were a month old, the pigs got the milk. The calves, of course were allowed to suck, and suck -the trouble was their small bodies could not hold four gallons. Though they were suckled three times a day if the cows came home at noon, they always set up a great bawling and bleating at night and ran with lifted tails down the fence, the minute they heard the first faint low of their homing dams. These of course were calves of the milk cows. pitied the little creatures, though he knew they were always well fed, and wondered if they did not envy the other calves, those meant for beef, which ran with their mothers, and took nips of warm milk about every half hour.

They were fine fellows, all dark red roans like their short-horn sire, but Joe did not care for them as he did for the scrub calves. Scrub stock is a colloquialism for ordinary native blood. White Oaks scrub stock was not the least scrubby, although it lacked uniformity—had red coats, or black, or white,

or gay red-and-white blotched, was longhorned, short-horned, even entirely hornless. Young calves have no horns. The horns come through between two and three months Muley calves - properly, polled or hornless ones - could be told from the first by the high bunchy crest of long hair standing up pertly between the ears. The scrub stock was the same, of course with many dilutions, and much intermingling, the pioneer Baker had driven over the mountains into Tennessee. In proof now and again, a red cow, or a white one, or a blotchy brindle, or a white-faced black, dropped a calf with a pure dun coat, like the dun ever-so-manytimes great grandmothers which had come out of Carolina.

Cows do not forget their big children in the delight of loving and licking their little ones. Even after the big ones have calves of their own, the milky mothers moo recognition and lick the daughters all over. That is however a service any cow will perform for a herd-comrade with whom she keeps terms of amity and comity. Considering how blockily a cow is built she has a wonderful facility in reaching all over herself with her tongue, her tail, or her hoofs. She scratches herself back of the ears and under the jaws, with deft motions of her hind hoofs.

But the hoofs overshoot the neck, and cannot reach the region directly between the shoulders - elsewhere along the back and quarters Sis Cow licks herself, at the apparent risk of dislocating her neck. The risk is. however, only apparent. She can and does suck herself, if she chooses, and further can both lick and scratch with her teeth the root of her tail. But the face, forehead, space betwixt the horns, and some ten inches of backbone where neck and body join, must go unlicked unless a helping friendly tongue is available. When shedding their coats in the spring they scratch themselves against any handy upright - tree, fence post, house corner, what not. By turning the head well around they can flick off with the tail a troublesome insect from the eyelid - one biting too far forward to be touched by the hind foot. At shedding time, and indeed all through the summer, all sorts of cattle love to find a dry bare spot, either sandy or dusty, and paw up the light earth all over themselves, bellowing faintly as they do it. Three or four bulky cows around the same spot, pawing, kneeling, seeming to bow to each other, then rise and try to dance, is a sight as grotesquely humorous as any in all the panorama of the pastures.

August with its clouds of winged stinging

blood-suckers, sends cattle to the refuge of deep still pools, or deeper stiller thickets. There they stand all day, hurrying out to feed at night, or rather early dawn, when the chill of the dew keeps flies and mosquitoes inert. Milk cows running upon rich fresh pasture fall back so much in milk, it is the part of wisdom to stable and feed them. perfectly dark stable protects from flies. Notwithstanding, cattle do not love it. Beyond all other domestic animals they keep the tang of primal savagery, in spite of having been for so long intimately dominated by humankind. In hot weather they hate to be penned at night, and are wily enough to hide themselves toward sundown, and stand perfectly still in the thickets or high weeds, until the cattle-driver has passed them by. Bell cows have a hard time, but manage to avoid sending out one betraying tinkle. Old man Shack's cow always ran out, so toward midsummer he hit upon the expedient of belling her tail instead of her neck. She'd be jest natchully bound ter make er racket then, he said — nothing weth a tail could n't, no tetch, keep hit still, weth them inseckses a-chawin' an' a-chawin'. The scheme was brought to naught, yet with some approach to poetic justice. Old man himself undertook to milk the cow, and got the belled tail so fair and square against the side of his head, it knocked him over and made him spill all the milk.

Most times cattle go to the same place to sleep, and choose for it the highest ground available, unless it is wholly unsheltered. Cattle turned into a strange pasture run about it, snuffing eagerly, as though intent upon finding out if it has held other cattle. Almost invariably the new herd sleeps in the same place the old one did - that is supposing it is an established cattle run. A single cow in milk, or with a sucking calf at her side, can lead and dominate a whole herd of beef cattle. At sight of a dog, stirred perhaps by remote memories of the days when there were wolves, cattle charge down upon him in mass. Unless he gets out of their way, they will roll and trample him to death, then gore the carcass, drooling and bellowing. Blood scent, especially the blood of their own kind, sets them crazy. Even to cross the trail of a fresh hide dragged through their feeding-ground, makes them prance, bellow, and make leaping plunges, lowering the head, and brandishing the horns as they come down. Bulls, curiously enough, are not so fierce over scenting blood as are cows. Cows with young calves grow most frantic. It is unsafe to go too near, either, while the phrenzy rages — especially if any member of the herd has an old score to pay. Cattle keep their grudges to equal Scotch highlanders. Indeed they have, throughout, long memories, and are apt in many ways.

Oxen well broken are driven without reins. They go to right or left, turn, back, hold back, or pull, according to the driver's word and the cracking and tickling of his keen black-snake whip. Ox-goads are unknown in the grass country of Tennessee, though they are in scattered use in the mountains. Oxen are slow but mighty — good for every use that requires steady power without speed. Literally they learn to bear the yoke in their youth. An ox running unbroken until three years old would be ill to handle and worse to drive.

Joe and Dan broke a yoke of oxen every season — sometimes two yoke. Yoke, like couple, requires no plural. As soon as the calves were weaned, late in the fall, they matched two of them, made a light yoke, penned the chosen beasts, fitted the ox bows to their necks, tied their tails lightly but strongly together, so they could not break their necks by trying to face each other, then made a rope fast about their horn, and drove them throughout the Saturday afternoon holiday. Before loosing the yoke, they stroked

and petted the calves, gave them nubbins of corn — nubbins, understand, are short ears, just the size to go in a calf's mouth — rubbed their noses over with a rabbit's foot, for luck, then set them free to gallop away and bleat their tale of ill-usage to the rest.

After two or three such afternoons the calves were hitched to Billy-Boy's trucklewagon, and made to draw it without a load. A truckle-wagon is somewhat a primitive vehicle, yet it is a question if a real live boy could get as much fun out of the finest in the shops as the truckle-wagon affords. The wheels are solid rounds, four inches thick, sawed from the butt of a black-gum log. They tare commonly about eighteen inches across. Then the truckle-wagon is good for something. With wheels a foot across, it is little more than a toy. The running gear, like the wheels, is home-made; the axles of seasoned oak, with nails for linch-pins. There are rocking bolsters that do not rock worth mentioning, upright standards, and a box-body fitting racketily between them. The body was for use when Billy-Boy himself, or walnuts, or bark for cake-baking had to be hauled. Serious work, - such as fetching a barrel of water a-field, or a barrel of cider from the orchard, or taking the scalding-tub down to the creek, when hog-killing was afoot, - required only the standards and pretty careful

driving.

The driver of course walked beside, as befitted a genuine ox team. It was always the
two or three-year-old oxen, fairly broken,
and toughened to work, that did the real
truckle-hauling. The calves might have
pulled Billy-Boy, or even Joe himself, easily.
But Joe would not impose upon anything
weak and young — and as for risking BillyBoy anywhere there was the least danger —
you could not have hired either Joe or Dan
to think of that. Billy-Boy was the apple of
every eye at White Oaks. Even Patsy, for
all she was so up-headed, delighted in his
tyranny, and was proud to be ranked the
most obedient of all his humble subjects.

Well-matched oxen working for years in the same yoke grow pathetically fond of each other. They feed side by side at grass, lie down and rise up together, low disconsolately if by chance one gets out of sight, and if forcibly separated, sometimes breach the stoutest fences to reach one another. Ox feet wear to the quick—not so easily as horses' feet do, but still so as to make shoeing imperative if they needs must travel over rocks either to the wagon or plough. An ox-shoe is a queer-looking plate of iron, split like the hoof, ill to make fast, not so easily

kept in place. Unruly oxen must be thrown and roped stoutly before they can be shod. Old man Shack told wonderful tales of "the fine ridin' oxen he had often an' often seed, up in the mountings," but Joe was unconvinced. He did not doubt in the least that some mountaineers rode upon oxen, carrying their grist to mill, their truck to town, or purely for the fun of it. But he did very much doubt the pleasure of such riding — from all he knew of cattle's lumbering, clumsy motion, he thought it must be ever so much more tiresome than walking.

Twin calves both of the same sex grow up strictly normal. But a heifer calf twin to a bull calf will not make a cow. She is called a free martin, and almost never breeds, though sometimes she gives milk. More generally she makes a fine free-footed ploughbeast, quicker and lighter-stepping than an ox. A yoke of free martins, indeed,—though such a thing is hard to come by—are worth almost as much in the making of a crop as a span of slow mules.

A hungry cow has quick wits. She learns easily to lift a gate latch with her horns, or lay down the rails of a fence in the same fashion, also to kneel, thrust her head and neck through a low slip-gap, surge upward with her shoulders, and thus wreck the fence

above, even though it be stake-and-ridered. She is, further, wise enough to eat in and in at a hay or straw stack in bitter weather, until she gnaws out a snug shelter for herself. She has her likes and dislikes among bipeds and quadrupeds: standing — the very pattern of bovine content — to be milked by one hand; snorting and kicking the minute another hand is laid upon her udder. Dogs, in general, she hates. Shepherd dogs she tolerates, because she knows they mean no harm - besides, they are so persistent, there is no use in trying to escape them. Among grazing beasts she has a certain awed admiration for horses, an amused contempt for mules, toleration of a sort for hogs, and bitter hate for sheep.

Cattle, indeed, will not graze freely where sheep have fouled and nipped the pasture, nor drink where the wooly gentry have roiled the water. This is partly because of the strong odor — an ill odor — sheep leave behind, partly also from the fact that sheep graze so close even a rabbit can hardly nibble after them until they have been three days away. Cows have an odor of their own, nearly as strong as the sheep smell, and pleasant or unpleasant largely according to circumstance and state of mind. The breath of cattle running where there is much sweet vernal grass, is

really fragrant, very unlike their breath when grazing red clover, or feeding down stubble or aftermath.

A prodigal son or daughter - otherwise a stray - is not received by the herd when he comes home as becomes a fatted calf. Instead, he is hustled and tussled mightily, forced to his knees, beaten with many hornstripes, before he establishes himself upon even a footing of toleration. Even more curious is the way herd cattle fight among themselves, when turned from a wonted pasture eaten bare into one full of fat pickings. The plenteous prospect seems to go to their heads. At first they run all about, bleating and bawling like so many hungry calves. They snatch mouthfuls between bawls, then all at once set to locking horns in twos and threes, butting, pummelling, overthrowing, rolling the overthrown along so violently they seem in danger of broken bones. The smaller and lighter the contestant, the greater is his spirit. Two-year-olds scramble up, bleating defiance at the big fellows who have downed them, brandishing their horns martially, and pawing up earth all around. After an hour or so, when every horn of them has tried conclusions with every other horn, they settle to steady feeding, and keep the peace until the time of the next new pasture.

All animals play the game of follow-my-leader. Cattle are no exception. At the shipping points, where there is much business, every stockyard has or had its trained steer which runs nimbly up the gangway from the stock-pens to the car, thus luring its unwary fellows to the beginning of doom. One such beast, out West, was said to have placed a half million fat steers aboard the trains. Since after it all his end was beef, there may be something of even-handed justice yet remaining in the world.

## Feathered Folk

## Chapter XV



FREAK scientist declares birds taught men to speak. Whether or no he is right, it is a fact that chickens talk. Even very little chicks, just out of the shell, have three separate manners

of speech. Cold, hungry, or lost, they utter a shrill, piercing peep, oft-repeated and continuous, until they are either comforted or exhausted. But this shrill crying can change all in a wink to a soft wit-twit-wit, intensely full of satisfaction. Sleepy, chicks tell their mothers or keepers of the fact with a gurgling yeepl-leepl-lp, yee-epl-lee-epl! When they cry thus in the brood, if the mother persists in tramping about instead of hovering them, the biggest and boldest of the flock springs upon her back, and tries to huddle down there, though he is physically certain to topple off the next minute. Sometimes two

or three chicks fly up at once. It takes either a very hungry or very hard-headed hen to withstand such assault. She may keep moving for a few yards, but is sure to end by settling down, spreading her wings, and drawing in her neck, the while crooning content, as her babies run underneath her and nestle little heads against the warmth of her bare breast.

Brooding hens strip their breasts the better to warm their eggs. Twice a day they turn each egg completely over so the warmth may be equal. They sit very close to the eggs, but bear no weight upon them, any more than they do upon their living chicks. Just how it is managed it is not easy to say, but in hovering their broods hens do not sit flat down as they do asleep on the perch. They poise their bodies mysteriously so as to come within an inch or so of the ground, then drop the wings, curtain-wise around the edges. The bigger the brood, the more the wings spread, but the loosening is the same with one chick or with twenty. Very big broods as they grow into the estate of spring chickenhood, huddle about their mother, well content if they can get their heads in anywhere about her. Fall broods, which are carried very much longer than spring ones, indeed often make the hen look a feathered freak with one

big head and very many pairs of small legs treading in every direction.

Normally hen eggs hatch in three weeks. In very warm weather, the chicks may come out in twenty days. If the eggs were old before brooding began, they may require twenty-two days. After that, though chicks may be alive inside the shell, they are too feeble to break out. A chick lies coiled into the neatest possible oval inside the shell, and pips it, that is to say breaks it, by pressing the point of his beak strongly outward against it. The whiff of air that goes through the first pip and sets the chick to breathing, strengthens it to turn itself slightly, so as to bring the beak against a new space of shell. After this is broken there is further turning. Five pips commonly break the shell in two unequal cups. The beak comes somewhere towards the middle.

It is dangerous to try helping out a weakly chick. The turning in the shell has a use other than that of breaking out. Eggs are lined throughout inside with a fine white silken membrane. In hatching, blood-vessels develop all through this membrane, and the blood is oxygenated in them by means of air coming through the pores of the shell, to feed and form the growing embryo. These blood-vessels center in a sort of umbilical

cord, which the turning twists loose so gradually as to prevent hemorrhage. A chick just hatched is not pretty — it sprawls and spraddles, sways a weak head from side to side, and wears a wet coat, depressingly clammy to the touch. But three hours of mother warmth make it quite another creature. The coat dries to the softest silky down, the eyes grow bright, the head is pertly erect — if placed upon a plane surface Master Chicky makes the funniest clumsy staggers at walking, stretching his winglets in the attempt to balance himself, exactly as a baby balances with his arms before the first step.

Indeed there is no prettier sight in all the life of the farmlands than a nest whose maker has discharged the whole duty of a hen. Brooding twenty eggs, she has probably hatched seventeen. There may have been a difference of twenty-four hours in the time of hatching. With the eldest of her children running up over her back and beginning to cheep hunger, she knows it is time to go off with her brood. So she steps out, clucking and scowling. The nest may be three feet above ground, but she will get every chick that is dry out of it, no matter how feeble. If any are just coming out of the shell, and cry pitifully as they miss her warm breast,

she stays, clucking very hard, occasionally going back on the nest, then hopping off, to join the little balls of fluff crying on the floor.

If instead of thus coming off herself she is taken off by the hen-wife, she will scowl mightily, even squawk, and peck so as to draw blood from the hand slipped under her wing to lift her. Hens with game blood fly furiously at whatever comes near the nest, after the first week of brooding. The heavy eastern breeds - Shanghai, Brahma, Cochin, and their derivatives, such as Plymouth Rock - are very gentle, hardly even scowling when lifted off. Leghorn and Black Spanish are so fond of egg-laying they will not hatch out a clutch of eggs, except in very rare cases. To make up for that, they scowl and peck if touched while laying. Brooding hens seem to think it is both a right and duty to claim every egg within reach. They stretch the head into adjoining nests, clutch the egg under their beaks against the breast, and thus roll it into their own nests. They will also often call enticingly to other hens laying close by, and endure almost any amount of crowding while the laying hen deposits her fresh egg along with the rest. Some few hens fight off such intrusion, and if it continues, will even quit the nest. But hens in the mass are

hard to break from the nest, whether laying or sitting. A brooding hen deprived of eggs or the chickens she has hatched, will sometimes starve, sitting upon the rocks with which her nest has been filled. Hens sometimes choose to lay upon top of a beam or a big bough in a tall tree, and continue to do it, although each egg, as soon as laid, falls and is smashed before their eyes. Hens begin laying at from six to nine months old. The average of egg-production in the common barnyard fowl, is something less than five hundred, distributed over four years' time. After that age, hens lay but sparingly in spring and fall. A laying runs anywhere between eleven and nineteen, in most breeds. Leghorn and Black Spanish lay sometimes as high as forty eggs without checking, and two hundred within the year.

Brooding, a hen lets herself go, and becomes a slattern of deepest dye. Though she dusts herself in earth or ashes whenever she comes off to feed — usually once in thirty-six hours — that is a precaution against vermin. She does not preen and place her rumpled feathers, while as for oil, they know it not. Commonly a fowl's coat is oiled in part each day. The oil-bag lies at the root of and in front of the tail feathers. It is a round gland with a queer little upstanding

nipple at the top. The beak squeezes oil out of this nipple, and spreads it deftly over the plumage, thus keeping up gloss and color. Oil-secretion stops while a hen broods. All her vitality goes in warmth to enliven the eggs underneath her. It is the same while she carries young - she must warm as well as feed and look out for them. Her comb is pale, her feet look pinched, her feathers fade and grow draggled, as she runs clucking about, keeping a weather-eye for hawks so ware indeed of the danger which cometh out of the air she often gives the grating cry of warning that sends her brood scuttering to cover, at the chance flutter of a kite, or even the darkening of a quick cloud.

She has somewhat of weather wisdom, but is without discretion. Though she hovers her brood as the first raindrops fall, she does not know enough to keep them dry and quiet until the fall has soaked in the earth. Instead, as soon as rain ceases she marches about, her draggled, unhappy brood peeping at her heels, and maybe drowns half of them in hidden small pools or high wet grass. Chickens drown very easily even after they are full-feathered, yet full-grown fowls thrive best when permitted to roost outdoors. Further their manner of feeding foretells the length of a summer shower. If they keep

on pecking grass it will be short — if they run to cover and sing disconsolately there,

look out for a rainy day.

A hen begins clucking at the first touch of broodiness, and keeps on clucking until she weans her young family. The clucks are individual, loud or low, soft and muffled, or spitefully sharp. They have need to be, since it is through them the broods differentiate their mothers. How the hens know their own chicks from all other chicks, even those of the same age, size, and markings, is among nature's mysteries - but know them they do. Hence often pitiful tragedies - little tender downy bodies cruelly pecked to death, little soft heads crushed and bloody, and all because of a quite pardonable mistake. Scent has, it is likely, much to do with it, since if a strange chick can be smuggled under the spitefullest of hens while she sleeps, she will be apt to mother it in the morning. But there are cases in which hens will kill even a chick of their own hatching, if by chance it falls under ban. One hen, a speckled top-knot, whose own proper eggs nearly always hatched out pert brown-striped little fellows, tolerated the brown-striped chicks, would steal every white one she could entice from another brood, and kill instantly a black chick, either in her own brood, or which tried to follow her.

The more shrewish and spiteful toward the rest of the world, the better mother to her own brood a hen is likely to be. She calls them loudly, joyously to feed, catching up the food in her bill, and dropping it among them with a back-and-forth movement of her under jaw. She does not peck a mouthful until the little fellows are well through eating - this of course, the proper hen-mother - there are greedy sluggards all too many. She scratches out worms and chases down bugs industriously, beats the worm to death and deprives the bugs of stings, wings and legs, and hard scales, then calls her young to eat - which they do by seizing the prey among them, tugging backward one against the others until they rend it, when they gobble each his share, stretching their necks as the morsel goes down, and chirping satisfaction after. Often before seizing hold, the chicks eye the prey, and back away from it, with little chir-r-s of fear or amazement. As they grow up the chir-r develops, as an immature cackle, the voice of wonder rather than of fright.

In spring heartless hens sometimes abandon a three-weeks brood. Yet the very same hens will carry fall chickens three months. Seven weeks is about the average time of mothering. Sometimes the weaning is grad-

ual. More commonly it comes all at once. There is delicious comedy in watching a hen who has made up her mind and body to quit her brood. She calls them with intense earnestness to feed upon imaginary worms, then when they stand looking bewilderedly for the titbit they feel sure has escaped them, she runs off as fast as her legs can carry her, making believe she is after a grasshopper or butterfly. The chicks follow her - she wheels and runs again. Some of them run back to hunt the mythical worm. Others keep at her heels, but half a dozen fruitless runs disgust them - they begin to peck upon their own account, paying no further heed to a parent so erratic. Slyly, with infinite caution, she slips away, runs down the fence side, hunts a favorite wallowing place, drops into it, and throws up clouds of fine earth with wings and claws, all the while pecking the earth in front of her. When she gets up she shakes herself vigorously two or three times, slips away to some shady covert, and begins to preen and oil herself for maybe the first time in three months.

Somehow she works a miracle. The coat so faded, so draggled it was fairly disreputable, gets gloss and color. The feathers properly placed hide all the ragged spots. Primly folded wings give an air of tailormade elegance, wonderfully set off by a comb grown suddenly coral-red. Her neck frill and breast are objects of Madame's specialest arts. Carrying her brood she has walked with her head well forward, neck somewhat outstretched. Now that she is re-entering feathered high society, she holds her head high, and very well back, breast protruding, and tail so pertly upright, it comes within a hand's-breadth of the comb. A toilet so elaborate, of course, takes time. It may be late afternoon before Madame goes singing down the yard, flaunting her tail as she walks, and glancing out of the tail of her eye at the most gorgeous cock on the place. Presently when he finds a worm, and calls softly Cuk-oo-cuk-"Co-cuk-oo! Co-cuk-co! oo!" she runs with the rest of the hens, and sidles toward him, her head coquettishly turned. If he gives her a little peck she receives it as an endearment - though cocks have been known to punish roundly hens that had abandoned downy callow broods.

Weaned chicks well feathered seldom miss their mothers until night. Then indeed they set up a pother, calling and peeping wildly. It happens sometimes that the peeping calls the mother back to them. Oftener she stays upon a high perch, and salves her conscience by clucking to them, though she knows well they cannot come up to her. If a pole is set to lead up to the perch she may go teetering up and down it, clucking and evidently trying to show her late family the way they should also go. Flying comes by nature to a chick. He will stretch his wings and attempt it before he has the sign of a pinfeather, though the pinfeathers start at three days old. But walking up to a height makes his head swim — at least until he has mastered the art of balancing. He gets on well enough upon the pole until he looks below — then he falters, turns to go down, and ends commonly in a fluttering fall.

A cock is not vain glory's emblem—he is vain glory's self. Any court accepting his testimony can easily prove that fine feathers make fine birds. Yet he is not without redeeming features. The game cock is courage made manifest in flesh and feathers. He fights purely from the love of it, when the spirit moves him. A sort of plumed Berserker, he has fits when he must fight or die. Fight and die is perhaps the better phrasing. Oft-times two birds of this temper keep battling all day long, stopping only for scant breathing-spells, and at last making an end of each other. In fighting, the wings are dropped so as to bear hard on the earth, the neck feathers ruffled until the

head is almost like John the Baptist's on a charger. A pure-bred game fowl should have no white quills in his wings. A white feather there indicates a discreditable outcross. Hence the phrase "to show the white feather," whose obvious application all the world knows.

Cocks of any breed are gallant, and to a degree industrious, although hardly to the degree beseeming persons of so many wives. However, family cares sit light upon their crests. They have nothing to do but crow, look handsome, and make a pretence of scratching out worms or chasing down fat grasshoppers for their wives. It is only a pretence - indulged in mainly to awaken agonized jealousy in the breasts of the other cocks. Often after calling, calling, for ten minutes, until half the hens are round about, each hoping for the worm held high in the caller's bill, that fine gentleman bolts the worm himself, then looks about as though to say: "See how magnificently just! I have allowed each of you inferior creatures to witness the refreshment of your lord!"

Turkey eggs, and duck eggs, which are much bigger than hen eggs, and guinea eggs, which are very much smaller, all hatch out in twenty-eight days. Goose eggs, biggest of all laid by domestic fowl — hatch in thirty

to thirty-three days. Goose eggs are pure white, and of an almost perfect oval. Duck eggs are pale sky-green, so pale they look white in some lights, and rounded at both ends. Ducks lay their eggs either at dawn or just before it. Puddle ducks make no nests, dropping the eggs where they roost. Guinea eggs are sharply oval, with a shell several times as thick as that of a hen egg, and in color a delicate yellowish-brown. turkey egg, three times as big as a guinea egg, is also sharply oval, with a thin fine white shell, richly freckled all over with brown freckles, light or dark. Ducks lay only in spring, from twenty-five to fifty eggs. Geese, also spring layers, produce from ten to fifteen each. Guineas begin laying about mid-May, and keep on until September, if the eggs are taken duly from the nest. If the eggs remain, the guinea hen sits when she has laid twenty or twenty-five. Guineas are to a degree monogamous - almost strictly paired where the sexes are equal. But plural wives among them lay in the same nest - which is made as far a-field as possible. While a guinea hen is laying, her mate perches upon a near-by stock or stone, and shouts a defiant "Ch-che-ch-ch-ze-ze-che-che-ee!" to all the world. Both sexes have another cry, interpreted in the farmlands as "Pot Rack! Pot

Rack!" Save and except by their crying the males and females are indistinguishable. They are singular among fowls in that they can scent any tampering with the nest. If eggs are taken from it with the bare hand, they will at once quit it, but if all but the nest egg be dipped out with a spoon, they will lay on indefinitely.

At White Oaks, the turkeys were Black Mammy's special charge, with Patsy next in authority. O but the turkey hens were sly creatures! They nested in the woods lot --Mrs. Baker believed in keeping them as near the natural state as possible. Along towards the middle of February, when the hens began to yelp mornings and evenings, the big bronze gobblers to strut half the day, holding wings hard as they strutted, and turning their red wattles to livid blue, Black Mammy knew it was time to be hunting eggs. Patsy wondered no little why the gobblers as they strutted let fall their snouts, like veils, dangling away down below the beak-tips well upon the breast. She wondered too why the Lord chose to give them such tufts of stiff black beard underneath their chins. The beards were certainly not pretty, nor any use as she saw things. Mammy explained that they really had a use - without them an old gobbler would not know himself from a

young one. The beards came out the first winter and got two inches long. They were three inches the second winter — after that truly patriarchal. The gobblers were very high-mightiful toward the hens, ruffling and shouting at them, almost from the minute they swallowed their morning corn. But the hens did not seem to mind in the least. They had a way of setting one wing upon the other above the back, flirting the tail, and going exactly when and where they pleased.

Watching them to the nest was fine and ticklish work. As certain as you let them see you, they led you a merry dance. A hen starting for her nest left the flock, pretending to feed away for maybe fifty yards, then set off, running, in almost a contrary direction. She doubled more than once in the course she laid, and if she knew herself followed, went directly from the nest, scratched out a false nest beside a log, or likely brier clump, and squatted down in it, never moving until she was satisfied she had tricked the watchers. When they were safe away, she fluttered up, and half flew, half ran towards the real nest, hurriedly laid her egg beside the others, got up, picked up leaves with her bill, and filled the nest until every egg was hidden, then ran home, yelping at the very top of her voice.

Covering the eggs is a remainder from the

wild state, also a wise provision against theft by crows. A hungry crow indeed is the most patient and most stealthy of all watchers to the nest. A watcher of any sort must beware the gobbler no less than the hen. If the gobbler catches sight of you he sends a special hoarse warning after the nesting hen. When Black Mammy and Patsy heard that, they turned and went straight home, waiting there until another hen began to yelp - then they set out upon a fresh and more strategic hunt. Once a nest was found they did not disturb its maker, but marked the place, and went back to it later, to take out the eggs and leave instead of them a hen egg. So long as it stayed for nest egg, the turkey would keep on laying. At first she laid every other day, but towards the end, every day. Two hens were commonly set upon the eggs laid by three. Turkey hens were not so very hard to break from brooding. Two days in the coop, with plenty of stimulating feed usually put the nest out of their minds. In a week they would be laying again, but the eggs were whiter, and of thinner shell, besides seldom more than eleven in the clutch. hen broken from sitting a second time, often stole a nest in September, and if she escaped minks and foxes, came up with a peeping brood of half a dozen just after frost. These

winter turkeys could be raised by taking pains, but they were always so stunted, never half the size of the spring hatch — they did not pay for the trouble.

Heavy thunder just as the eggs were ready to hatch often killed a whole brood in the shell. Like all other beaked young creatures, turkeys have a very sharp small triangle of horn at the tip of the beak, whose use is to chip the shell. It can be pinched off with the thumb-nail. Mammy always pinched it off - she said to make the turkeys healthy. She also always made them swallow a whole black-pepper corn, the minute they were out of the nest. For the first thirty-six hours turkeys are the most delicate of all young fowls - after that, with proper care, they thrive amazingly. At a week a healthy poult will eat his own weight in fresh clabber three times a day. But salt is poison to them. Black Mammy let her mother turkeys go free as air, but kept the young ones secured in three-cornered pens of twelve-inch plank set edge-wise, changing the pen to a spot of clean earth every morning.

The mothers did not go far, and the young were kept from straying. Young turkeys have an insensate habit of running off after anything in motion, even though they leave their mothers to do it. Their wing feathers

grow very quickly - at ten days old they could fly out of the pens at pleasure, and go off with their mothers to range and run in the wheat. Major Baker insisted upon raising all the turkeys possible because they were so helpful in the time of tobacco worms. Mammy had commonly seventy-five fine fellows, tall enough when the August glut of worms came, to pick worms from all but the topmost leaves. There were ducks too - but the trouble with them was to keep them from the water. If they got to the creek they ate the corkscrew shelled periwinkles, and died of indigestion. Patsy wanted geese, but the Major would have none of them - they ate too much grass, and grazed too close, he said, besides murdering sleep.

These are the feeding-calls, and pseudonyms for young poultry, in large part attempts to imitate their own cries. At the chicken coop: "Coo Chick! Coo Chick! Coo-coo Chick!! Cluck! Cluck! Run! Run! Ru-un! Chick-ee! Chick-chick! Chickee!" At the turkey pen, or in the edge of the wheat: "Pee! Pee-pee! Pee-pee!" Young turkeys and sometimes old, are familiarly pee-pees, not "deidees"—as some writing folk, who should know better, try to make it appear. Deidees are truly young

ducks, from the call which runs: "Ducky-diddle! Ducky-diddle! Diddle-did'l Deed'ldeed'l-deed'l! Ducky-diddle Quawk! Quack! Quack!" It is not a close second to the little duck's wheedling chatter, yet neither wholly unreminiscent of it. That is also true of the guinea call: "Widdie! Widdie! Wi-iddie! Widdie!" Young guineas are so small, so shy, withal so pretty, they look much more like game birds than any sort of domestic fowl.

Brooding turkeys and guineas are somewhat slovenly in appearance, yet less so than a brooding hen. Indeed a brooding hen is not only unkempt but seemingly out of love with life, herself, all things. She ruffs her neck, scowls, and drops her wings as she runs momentarily off the nest, fights all the prim, pretty pullets, also other hens like herself. Turkeys, which usually leave the nest only once in three days, go away from it with a hopping, flopping flight, and repeatedly stretch the wings, one after the other, over the back. But they do not show ill-temper -that is the prerogative of hens. While a goose sits the gander keeps ward over the nest, ruffling, hissing, and pecking viciously at anything living which comes near. If the attacked runs, so much the worse for it. The gander is after it, beating it with strong wings, and pecking to draw blood, his vicious blue eyes snapping all the while. Blue-eyes are among the gander's dear distinctions, but he is proud in proportion to the spotlessness of his white coat, and tyrannic to his geese

in proportion as they are gray.

Live geese can be plucked of merchantable down every six weeks between April and October. The down is picked from the breast and underneath the wings. The pickers must have a care, though, not to pluck a ridge of down, called the bolster, growing where the wings join the body. If they do, the geese cannot hold their wings up, but move with them hanging uncomfortably until the bolster grows again. A well-fed goose yields yearly a pound of feathers.

All domestic fowls moult between the last of July and mid-September. Apparently the process of getting new clothes is exhausting, even if they do not have to fight with modistes and tailors. Eggs in the moulting season are as scarce as the proverbial hen's teeth—that is, eggs fresh-laid. Turkeys are the least disconsolate among the fowls, but even with them, the gobblers cease from strutting and lose their big rolling voices. Cocks crow languidly right in each other's faces without provoking the ghost of a fight. Both cocks and hens cackle upon the least

provocation, or none at all, but it is a cracked unbalanced cackling, thin and reedy, half-way through, then suddenly pitched three keys lower. Upon rainy days the whole fowlyard gather in open sheltered spaces, as in a shed, or underneath a high-set outhouse, stand each upon one foot, with the head sunk between the shoulders, uttering now and then a sleepy croon, and never venturing out in the rain unless hard pressed by hunger.

Nature orders all things wisely. When her feathered children are thus under stress she spreads for them the richest table of all the year. Grain, grass, and weed seed, tender green stuff, fruits, bugs, worms, slugs, caterpillars, grasshoppers, butterflies, all abound, to tempt and to refresh. They help in bringing every manner of fowl to the glory of span-new feathers, gorgeously iridescent, red combs, and shiny well-oiled boots. Even rumpless chickens, which are born without tails, hence seem always the patterns of subdued and ill-used humility, become to a degree high and saucy, in early October. Better made cocks crow and fight, hens flaunt and sing aloud, turkeys vaingloriously strut and gobble, guinea fowl smooth and preen their fine spotted plumage, stretch their curious topknots to the utmost, and keep strenuous watch and ward. In that they are

better than the keenest watch-dog. Nothing can stir about the place between dawn and thick darkness without setting them into vigorous cry.

But one creature indeed is more wary the thrice gorgeous peacock. His vigilance is not limited to daylight. Any time in the night, if he hears a noise within a mile of his perch, he sends his unearthly cry ringing far and wide. There is a story in Tennessee of an old-time gentlemanly counterfeiter who kept flocks of peacock sentinels and for twenty years defied detection, though he worked in his own house, set fair to view not so far off the big road. Peacocks roost always in the highest trees about. Only the cock has the long gorgeous many-eyed greenyblue tail. The tail comes out at three years old, and is thus the sign of maturity. Hens have modest and symmetrical tails of rufousbrown feathers matching their coats, though full grown they have metallic blue-green breasts and neck ruffs. A strutting peacock is the sum and pattern of feathered pride, yet if by chance he glances down at his insignificant feet, the cart-wheel tail falls instantly, and its owner slinks out of sight. When the tail feathers are plucked, the despoiled owner of them runs away, and hides for several days. He will indeed sometimes

refuse to eat. By way of consoling him the despoilers tie long strips of soft rag lightly around his legs, so they may stream out behind him. Whether fear of them diverts his mind, or he looks upon them as the very latest mode, ever so much more stylish than mere feathers, nobody can decide. But the fact remains that he does often look over his shoulder to see them trailing after, also that with them he gets back to his normal poise of vanity very much earlier than without.

## Insects

## Chapter XVI



EN wise in the wonderways of the Egyptians tell us that contradictory people deified and built monumental temples to the scarabeus. The Egyptians made a mistake—

there is another insect, which deserves much better of humanity than the scarab — this upon the counts of use and beauty. It is the snake-doctor, which those unfortunates who are merely book-wise call the dragonfly. The book-wise people have, however, this justification. Snake-doctor is a name of wide and variable application, given in many mouths indiscriminately to the true snake-doctor, the dragonfly, and the gorgeous hell-gramite-fly, whose larva is known variously as hellgramite, hellbender, or dobson, and is further an aquatic prowler, and the most killing lure for trout.

That has, however, little to do with the true snake-doctor's claim to consideration. It is well to increase the number of trout men may eat, but ever so much better to diminish the number of musquitoes which do eat men. Musquitoes lay their eggs in clumps like fairy boats, or loose chain-clusters. upon the surface of stagnant water. The female musquito is the bloodthirsty one. She is bigger and stronger than the male, and altogether the executive end of the family. She lays eggs by the hundred - eggs which hatch and mature so rapidly she may be a great-grandmother many times over in course of a summer. A very little figuring shows how she would overrun and possess the land if there were not checks and balances. Her eggs hatch into that minute but writhing entity the wiggle-tail, the liveliest pest of ponds and standing rain water generally. The wiggletail is not without its uses - few things are, in nature's grand economy. It feeds mainly upon things invisible to the naked eye, and thus clears its pool-haunts of things worse even than itself. By and by it becomes a pupa which changes to the perfect musquito. The pupa is light enough to float quite at the surface. When the lava skin bursts to let the new musquito out, there is an instant of ticklish balancing before the creature gets its

wet wings fairly spread. If by chance the water roughens at that exact moment there is an end of one particular musquito. Musquitoes may be semi-immortal, but they are not even demi-semi-aquatic, after they get their wings.

Now, Mrs. Snake-doctor — Princess Dragonfly, just which you please - also lays her eggs either in water or hard by it, upon herbage likely to sink into the pool. The eggs hatch under water into fierce and lively wrigglers, which prey upon wiggle-tails and much else, moult several times, and end by changing to a nymph, from which in the end

the perfect dragonfly comes out.

There are all sorts and conditions of dragonflies - more than a lazy person would like to count. White Oaks dragonflies were of two sorts - in color either iridescent blackish-green, or still more iridescent blackish-brown. They had long, round, slender bodies swelling lumpishly where the wings were set on, stout heads, and voracious mouths. The wings were their chief beauty - two on each side, gauzy, glittering, three parts as long as your finger, and full of lacelike veinings richly dark. For all the wings are so gauzy-glittering they are incredibly strong in flight. They bear the snake-doctor, almost with the speed of a bullet, far and

wide over woodlands, pastures, and meadows, though still his favorite hunting-ground is the neighborhood of pools. True to inherited instinct, he hunts musquitoes, also midges, gnats, May-flies and such small deer, seizing them upon the wing and bolting them as he flies. Hence the name - dragonfly, after the mythical dragons - St. George's, for example - which caught and devoured their enemies as they flew abroad. A cant name for the dragonfly is gnat-hawk, or musquitohawk - but who would ever think of setting it beside snake-doctor? Negroes say the snake-doctor is called on to help snakes cast the skin—especially the skin of head and eyes, which the snake-doctor picks off. Further, in August, when the black people believe that all venomous snakes go blind, the snake-doctor is thought to lead them to water, and to distil into their eyes dew gathered from certain plants and so full of their virtues it brings back sight.

Possibly the belief grows out of the fact that it is to the wet and marshy places beloved of snake-doctors many snakes choose to go when ready to cast the skin. Joe did not believe the snake-doctors had anything to do with it, but Patsy said if the books told the truth about the snake-doctors, they had changed their own skins so many times and

fitted on such different new ones, they ought to know a great deal about the way to do it.

People much more learned than Patsy are in doubt over the locust — the cicada of Greek poets, indeed of poets generally. Some spell his name cicala - perhaps because they accept Ruskin's saying that the first essential of poetry is untruth. The name has, however, little to do with wise incertitude — that hinges upon the question of whether the true locust period is seventeen years. Records show seventeen-year broods and thirteen-year broods. The wise men divide upon the question whether the two are the same, with the period of development shortened by climate. The thirteen-year broods are oftenest seen in south-lying regions. There is also a biennial cicada but Ioe and Patsy knew nothing of the difference. If they had known they would not have cared. Possibly through overlapping broods there were locusts at White Oaks every year --- sometimes very many, sometimes very few.

Locusts begin existence in the shape of fine pearly eggs, very much smaller than grains of mustard seed. These eggs the mother-locust lays in woody substance of some kind, preferably growing twigs and bark. She saws the twigs through to the pith with a pair of fine saws, specially provided. The egg-laying is done from midsummer forward, and after it is finished the mother-locust dies.

Young locusts are tiny creatures, but worm-like and lively in wriggling. Safe in earth they live through long years, feeding first upon grass roots, and later when they have strength to burrow deeper, sucking the feeding rootlets of trees and shrubs. Several times they cast the skin after the manner of wriggling things. By and by they change from worms to bugs - bugs with many legs, very big horn-shielded eyes, and roughish, horny coats. In this form they occasionally venture above ground, but quickly run back again. After a while comes another change. This time it is to the nymph, whose vacant horny shell scattered thickly all about is the hall-mark and sign manual of a true locust year.

As to how long a nymph remains a nymph, the wise men say it depends—depends upon breed, season, and environment. A proper nymph possibly takes note of time only from its loss—it is too fully occupied with grubbing about, and sucking juice from the roots for day or night dreams. But by and by, when the time comes, it dreams to good purpose. Then some fine night it begins a furious tunnelling upward. And

about daybreak some finer morning there is a round hole in the earth's surface, a hole more than half an inch across and running down to deeps unknown. Something crawls out of it—a horny russet-yellow creature with six legs each ending in two sharp hooks reflexed like a fish-hook. Its impulse is still to go higher. It crawls up something firm, as a post or wall or tree-trunk, sometimes going ten feet above the earth. Once sure it is high enough, it sinks in its hooked feet as firmly as possible, and waits.

Presently the horny back cracks open. It parts, at first almost imperceptibly, but still it parts. After an hour a new creature shows inside the parting. It is dark and wet, and before long begins to bulge outward. By looking close you see that the hooked feet are holding against considerable strain. It is the locust, no more a nymph, pulling itself together before launching itself on the new, wide, sunlit world. By and by the head shows, the eyes of it peeling off their horn coverings as though they were outworn glasses. Fore legs, pushed gingerly out, unfold and stretch themselves to rig a purchase upon the horny shell. There is a sort of surge when the wings come through the crack. They are not the glancing wings that a little later will charm all eyes, but lumpy and damply clotted from very tight packing. Another pair of legs follows the wings, then the pointed tip of the body, and last of all, the strong hind legs.

The coming out is a marvel, but less marvellous than the aftergrowth. Before it flies the new-born insect grows visibly. Nymphs may measure something over an inch in length—the locust, full-fledged, is twice as long and three times as broad as its abandoned shell. As the insect dries, a fine iridescent down shakes out all over its body—the unfolding wings, stretched with infinite care, quiver gently as air is forced into their veins and ribs. Long before men invented pneumatic tires nature was putting the same sort of thing into the stiffening of her myriad gauzy summer wings.

By and by the wings cease to quiver, and wave gently back and forth. Eyes harden to endure the light, antennæ unfold. Before midday there is a perfect locust ready to sail away through the summer air, to sip dew and honey and the spilled juices of ripe fruit, sport through happy days in the sun, mate and die, chanting to the last the stridulous chant of midsummer. When one considers its active life one ceases to wonder that the Greeks, wise in all earth-wisdom, held it the happiest of created things.

Joe and Patsy loved the locust song, and dared each other often and over to get up early enough to watch them break out of the shell. But somehow there were always so many other early-morning things to do, they hardly ever got round to it. Still they were distinctly on the locust's side, even when they were plenty enough to spoil the fishing. Fish worth catching would not take other bait when they had all the locusts they could eat for the swallowing. Before the locust dropped too plentifully into the streams, Joe sometimes caught a big fish by putting a locust delicately upon his hook, and dancing it lightly over deep still water. Old man Shack shook his head over such fishing — "hit wus er clean da'ar ter Provydence," he said. "Locusses wus knowed, well-knowed, ter be pi'son, and besides nigh kin ter witches. Else how-come it, in the Bible they wus sent ter eat outen house an' home them thar nigger-kings that would n't let the Childern-'f-Isruul go - not no tetch ? An', furdermo', that wus how-come it, they could kill trees by jest a-stingin' of 'em, up ter yit. As fer fruit, - well, er baby knowed hit wa'nt never safe ter eat no sort o' hit, in er plumb locus' year."

The blacks had quite the same beliefs, and even greater dread of the locusts. They told

weird tales of boys and girls poisoned by eating "locusted blackberries," or mulberries, or plums, or peaches. But Joe and Patsy laughed at the tales, ate all the fruit they wanted, and were never the worse for it. The reason may have been that they kept themselves too busy and too happy to think of falling ill. Day time or night, there was always something to entertain them. The lamps were no more than lighted, for example, before there were all sorts of things flying in. All of them, of course, had to be looked at, but what delighted the children most were the ponderous black things they called Betty bugs.

The Bettys were bigger and solider than any other flying things they knew. Some of them were oval, or rather terrapin-shape, and quite as big as small terrapin. Others were longish, and nearly as broad at the head as through the body. These long gentlemen had curious crescent-shaped horns projecting either side from their foreheads. They were, further, jointed a little less than half way their length. Long or oval, the Bettys had hard shells, glossy, as black as charcoal, and finely ridged up and down. They sailed in almost straight to the light, veered wildly, flew round and round, then bumped against walls or ceiling, and came croppers on the

floor. If the rounded ones fell on their backs they could not turn themselves, but lay, legs up, kicking stupidly until Patsy swept them up on the shovel and tossed them into outer darkness. Some of these were nearly three inches long, and so heavy they plopped like clods in falling. They had fine brown gauze wings, which, except in flying, they kept snuggly tucked within the cupped black shell. Patsy always ran the minute she heard a fall -she liked to see the Betty draw in its wings and tuck them in place, though she was sure the cupped shell must be as clumsy and heavy as was the armor a knight wore back in the old days. Occasionally she turned a Betty right side up, in hope to see it spread its wings and fly. But the Bettys disappointed her; instead of flying, they scuttled for cover as fast as strong legs could carry them.

The long Bettys could right themselves; they were not quite so heavy as the broad ones. But if a fall stunned them, or lamed them a bit, they feigned death, after the manner of their poor kinsmen the tumble-bugs. You had but to touch one of the tumble-bugs, rolling his malodorous ball, ever so lightly, to have him drop motionless. Then you might turn him upon his back, and by watching five minutes, see him right himself, and either go on with his ball or

spread his wings from beneath his cupped outer coat, and fly away. There was an egg inside each of the balls he rolled. When he got it where he thought it would be safe, he dug a hole with his round flat spade-head, rolled the ball inside, filled up the hole with loose dirt, and flew off to begin work over again. After the beetle fashion, his outer shell was turtle-shaped, divided across the middle where the waist might be thought to lie, with the lower half hinged and split lengthwise up the middle. The earliest tumble-bugs were dull black all over, then came fine fellows green throughout the upper half, and later, gorgeous gentlemen, goldengreen all over. The gorgeous gentry were less industrious than the black fellows - at least in the matter of rolling balls. They made balls all right enough, but commonly buried them very close to where they found them, whereas the blacks sometimes rolled balls over a hundred yards.

Golden green tumble-bugs grew plenty just as June-bug time came on. Thus the black people had a color of reason for believing as they did that the June bugs were tumble-bugs transfigured. The June bugs had rich green coats, with lacy wings hidden underneath, and legs, breasts, and throats of the finest yellow. They haunt gardens and cornfields in

myriads, and have a curious trick of clinging together in stair-step clusters, often six or seven long. Captive, they buzz like mad. The black children caught the June-bugs by handfuls, tied strings to their hind legs, then let them fly the length of the strings, to hear the buzzing which they call "Junein'." They also called the bugs "Juney-bugs," and ran about with a dozen on the same string flying above their heads, and shouting as they ran: "Juney bug! Juney bug! Fly 'way wid me!"

Billy-Boy's nurse always let him June a big cluster - at the end of a very long string. Neither Joe nor Patsy ever touched them with bare hands - not that they feared them - it was only that the June-bugs looked so like the unclean tumble-bugs. What the June-bugs ate nobody knew - unless they really fed with the tumble-bugs. They spent their time for the most part stair-stepping on the under side of corn blades, and staying motionless for hours. Yet they did not seem to mind sunlight, often flying right out into it, if they flew at all. Thus they were unlike most of the corn's insect haunters. Moths abound there. One of them, a strict night-flier, gave Joe and Patsy heaps of occupation. It was as big as a hummingbird, with blackish gray wings, two on each side, a hollow honey-sucking beak as long as your little finger, prominent eyes, a thick black velvety body, and two rows of gorgeous orange spots down either side. The children called it a tobacco-fly, and waged war on it with might and main.

The war was singular in that there was reason, even a color of justice, back of it. Tobacco-worms are so much the pest of tobacco fields, if once they get beyond control in a week they can bring the whole year's crop to naught. They are hatched from little clear white eggs, which the tobacco-fly lays numerously on the broad leaves. At first they are no bigger than a cambric needle. Notwithstanding, they quickly manage to eat a passway through the leaf, and shelter themselves from the sun under its under side. At a day old they have, maybe, made a hole the size of your little finger tip. At a week old they are as big as the finger itself, and quite capable of devouring half a leaf in twenty-four hours. Now since a tobacco plant has but eight leaves or ten at the most, and may have from two to one hundred worms upon those leaves, it becomes evident that here is a struggle - with the chances favoring the survival of the unfittest, that is to say, the worms.

Worms are what make eternal vigilance

the price of fine tobacco. Sometimes a field is hail-beaten out of commercial quality, the leaves bruised and riddled until it looks to be badly worm-eaten. "Green hail" is thus a cant name for worms, specially applicable if they are slothfully permitted to ruin a promising field. The worms have sharp horns at the tail - hence are also called horn worms. They are green, with lighter-green markings along the back, round heads full of strong teeth, and many legless feet. If disturbed in their feeding after they are well grown, they raise the head, grit the teeth audibly and eject a big drop of acrid brownish fluid, the juice of the green tobacco. They come in "gluts" — that is, in special numbers. first glut, hatched early in July, is from eggs laid by flies that were worms last year. The worms went deep in the ground just after frost, changed themselves to blackishgray shiny "jug-handle" chrysalids and lay dormant until the spring sun was hot enough to hatch them under the earth blanket.

Since the destruction of a pair of flies means the prevention of five hundred worms, Major Baker set a price on flyheads, and paid it cheerfully. Further, he helped his emissaries all he could in the work of destruction. Tobacco-flies feed daintily upon dew and honey. The early hatch haunted

the flower borders and honeysuckle trellises all through June, hovering momently to rifle roses and lilies, but in the end returning to the long-throated blossoms whose sweets the bees could not reach. Joe and Patsy also haunted the flowers of evenings. The flies came out after sundown, and the children grabbed at them until it was pitch dark, or long after, if the moon shone. They pulled off and strung the flyheads, and there was sharp rivalry as to which should show the most. They got double price for these early heads, since each of them meant many thousand fewer worms in the dreaded "August glut." Eggs for the August glut are laid by flies hatched from June or July worms. The full moon of August is the really trying time. Flies are plentiest then, also most active, and forsake the garden blossoms for those of field and waste.

To destroy these fine summer-hatched legions was the end of jimson weed planting. Books make it Jamestown weed, or datura stramonium, but the farmlands know it only as jimson weed. The weeds were planted along the turn rows, also in convenient clumps about the fields. They must have felt the world a bit upside down, at finding themselves, the weediest of weeds, neither plucked up, nor hewn down, but tended and

coaxed to full blowth with the very nicest care. The first long white frilly-edged trumpets came out on them when they were no more than knee-high, but towards the last they grew taller than your head, and correspondingly branchy. Every flower they opened was poisoned at sunset after. Joe and Patsy tramped about, armed with longnecked quill-stoppered bottles, full of cobalt mixed in honey, and shook drops of it deep in the flower-hearts. Next morning they came again to snip off the poisoned blossoms - if left to wither, the poison ran down the stalk and killed the plant. With half a dozen blooms to the weed it was no great task, but when the blooming was fairly on, and fifty opened upon each plant, it was something considerable. Since it is so considerable, a wildly inventive genius has sprung upon tobacco-growing communities an imitation jimson bloom of staring white glass, which can be tied to a stick, and poisoned once for always, but the planters rarely insult the intelligence of their enemies with a makeshift so crude.

A cent each for dead flies is no great price, but what with doubling on the early ones, between snatching and poison, Joe and Patsy turned a very pretty penny. Major Baker let them do the work because it required intelligence and the strictest attention. He never haggled in settlements, and allowed liberally for the poisoned flies which died too far off to be counted. He only smiled when old man Shack said, "the Majer he wus jest a-baitin' them thar p'ison inseckses ter come in droves ter the terbaker patch an' eat the crap plumb ter the stalk." The Major could afford to smile when he found himself getting through the August glut without the bother and expense of hiring extra hands.

Unless the poisoned blooms had been cut and buried, the bees might have got at them, with very bad results in poisoned honey. Bees can suck poison almost with impunity. They produce both wax and honey from the sweets they suck. Throughout the summer, bees feed largely upon pollen mixed with a very little honey. The mixture is the "bee-bread," with which the brood-comb of a hive is filled.

A swarm has but one mother — the queen, who lays all the eggs. The drone-fathers do no work, creeping listlessly about, and feeding on stored honey until after the eggs are laid. Then the working bees, all rudimentary females, fall upon the drones, sting them to death, and drag them outside the hive. Thus it appears that the little busy bee is not a pattern of filial excellence, any more

than of several other virtues with which she is mistakenly accredited. Industry, for example. Bees get out of the way of laying up honey, if they can find a weaker hive to plunder. Plundering is indeed so universal an instinct, and so well recognized among bees, every swarm has a few guards whose business it is to watch the hive and at once sting to death any stray bee that creeps into it.

Bees also lose industry in the time of cider-making, if that process lasts longer than a day. They hum and buzz around the mills or the trough, swarm over the pomace, and end by getting gloriously drunk as the cider gets hard. They will cluster thick along the edge of an open bucket, sucking, sucking, until sometimes when they try to fly away, they either tumble helplessly to the ground, or describe zigzag somersaults infinitely diverting. They will also feed supinely upon shallow pans of sugar and water set conveniently near, though richly flowered fields and woods may invite.

Still they are active, and fine workers if they must be. In early spring, when the plum-blossoms swell, the first flowers are not open before the bees begin to haunt them. It is the same with the peach trees. There the bees show discrimination. Unrifled, a peach blossom has a drop of clear honey at the heart almost as rich as any the bees themselves secrete. To secure so great a prize the bees crawl laboriously up and down the stalks, and over and around each swelling bud, seeking to thrust a head within the richly incurved petals, as soon as they begin to unroll. Often the honey-gatherer succeeds, and sucks the drop, herself hidden by the pale pink petals. Peach bloom is singular in that it does not fade, but deepens as it falls. Fresh blossoms are little more than flesh-pink and shed petals richly crimson.

A swarm is a strict monarchy, though it is questionable if the queen mother is not rigorously held by constitutional limitations. It appears that bee royalty is wholly a matter of nurture. The workers prepare special cells, a little larger than the rest for rearing young queens, and after the egg is laid, fill the cells with royal jelly, in place of ordinary beebread. After she is done flying out, sporting with the drones, the queen rarely ventures out of hive-bounds. It happens sometimes, though, that her subjects rise up and slay her, or that in some other way she is destroyed. Then if there are young queens hatching, the hive stands still, waiting for them to come out and settle the succession among themselves. But if the queen should be

taken away before filling the royal cells, the workers enlarge ordinary cells, take out the bee-bread, put in royal jelly, and get queens quite up to standard as a result.

It is the queen-bee, young or old, who leads out a new swarm. If several queens hatch simultaneously, there is an interval of chaos in the hive, much crawling back and forth, humming, buzzing, and stinging. At such times bees are most difficult of approach. By and by, occultly, affairs seem to adjust themselves. A swarm goes off, the queen settles in place, and the workers in mass take the superfluous queens and kill them, then drag them outside the hive. Bees are neater than wax in their housekeeping. They permit no spilled honey to remain, neither any chips of any sort. They mass themselves thickly, and with fluttering wings fan out all sorts of trash.

Since the queen is the mother, stocks of bees can be changed completely in two years by the introduction of new queens. Italian bees are said to sting much less, and make more honey, hence are high in favor. Bee eggs have the curious property of parthenogenesis — that is to say, they will hatch even if there happens to have been no drone in the hive.

Honey betrays its origin even more than

milk. The whitest, richest, finest flavored of all honey is that from peach blossoms. Next comes that garnered from raspberry and blackberries in bloom; after that the product of white clover, with linden-bloom honey a very close second. Buckwheat makes heavy yields of honey, but it is cloying and sickish-sweet. Goldenrod taints fall honey with a faint weedy taint. Honey ravaged from plums or grapes is fine and flavorous, though not very light. The trouble with such bee-pasturage is that it goes to the head, and makes the bees for the time too convivially inclined to think of real work.

New swarms are finicky as to where they will settle. Sometimes they go inside a hive, stay there a week, and begin working blithely, then all at once are up and off. Rubbing a hive inside with peach-tree leaves or smoking it lightly with sulphur is thought to make a new swarm better content. In flying, a swarm looks like a small brown cloud, careering, or, more properly, rolling just above the treetops. At first swarming bees settle in thick clumps upon anything handy, the queen in the middle, the others massed all over her. Sometimes the mass droops in a long blunt pendant almost like an icicle. If the swarm comes out after midday it is likely to settle close to the hive and stay quiet until morning.

If it has settled upon anything detachable, as a tree branch, or projecting board, bee-keepers spread a white sheet down underneath, place a clean hive in the middle of the sheet, then saw off the bough or the board, and lower it gently, taking care not to disturb the bees. If the bees cannot be thus detached, they are sprinkled and swept off. After a little those upon the outer edge begin crawling along the sheet, and go inside the hive. They may come back in a minute. Commonly there are three hours of running to and fro. If at last they stay inside, the hive is left standing until night, then moved in place on the stand. But the bees may go in with every sign of satisfaction, then all at once swarm out again, and whip away before anybody knows it.

Wild bees are not native to America, but strays from civilization. In the old days it is said the wild swarms kept twenty miles in advance of the pioneers. The Indians said when they heard them humming about: "Here come the little white men!" A wild swarm, undisturbed, with plenty of pasture, will stay for fifty years in the same place, filling every crack and cranny of it with honey and brood comb. A dry cave, or an unused garret or belfry, suits them to a nicety.

Bee superstitions are innumerable. Old man Shack had at least twenty without stop-

ping to recollect. For instance, it was seven kinds of bad luck to buy or sell bees, excellent good luck to steal them, and lightning luck — that is the most unexpected strokes of it — to have a stray swarm settle on your place, with nobody ringing bells at them or throwing up clods of dirt. Further, bees would be sullen, sting, work laggardly, and in the end run away, if you did not specially tell them when any body died or was born. Neither would they thrive if you forgot to give them a special Easter good-morrow — good-morning would n't do in the least.

The people at White Oaks disputed none of this. They were kindly wise enough to understand that the old man's beliefs were too ingrained to be controvertible by mere reason. Besides, they had all the large tolerance of the fields — which teach, as nothing else can do, that there are more things than have ever been mapped and bounded, or brought to book in the widest or the narrowest philosophies.

## NEXT TO THE GROUND

BY MARTHA McCULLOCH-WILLIAMS

