

Before he had recovered from the shock caused by the tragic passing of Curly, he received another shock. Francois fastened upon him an arrangement of straps and buckles. It was a harness, such as he had seen the grooms put on the horses at home. And as he had seen horses work, so he was set to work, hauling Francois on a sled to the forest that fringed the valley, and returning with a load of firewood. Though his dignity was sorely hurt by thus being made a draught animal, he was too wise to rebel. He buckled down with a will and did his best, though it was all new and strange.

Francois was stem, demanding instant obedience, and by virtue of his whip receiving instant obedience; while Dave, who was an experienced wheeler, nipped Buck's hind quarters whenever he was in error. Spitz was the leader, likewise experienced, and while he could not always get at Buck, he growled sharp reproof now and again, or cunningly threw his weight in the traces to jerk Buck into the way he should go. Buck learned easily, and under the combined tuition of his two mates and Francois made remarkable progress. Ere they returned to camp he knew enough to stop at "ho," to go ahead at "mush," to swing wide on the bends, and to keep clear of the wheeler when

the loaded sled shot downhill at their heels.

"Three air' good dogs," Francois told Perrault. "Data Buck, hem pool lake hell. I itch hem quake as anything."

By afternoon, Perrault, who was in a hurry to be on the trail with his dispatches, returned with two more dogs? "Billie" and "Joe" he called them, two brothers, and true huskies both. Sons of the one mother though they were, they were as different as day and night. Billie's one fault was his

Excessive good nature, while Joe was the very opposite, sour and introspective, with a perpetual snarl and a malignant eye. Buck received them in comradely fashion, Dave ignored them, while Spitz proceeded to thrash first one and then the other. Billie wagged his tail appealingly, turned to run when he saw that appeasement was of no avail, and cried (still appealingly) when Spitz's sharp teeth scored his flank. But no matter how Spitz circled, Joe whirled around on his heels to face him, mane bristling, ears laid back, lips writhing and snarling, jaws clipping together as fast as he could snap, and eyes diabolically gleaming--the incarnation of belligerent fear. So terrible was his appearance that Spitz was forced to forego disciplining him; but to cover his own

discomfiture he turned upon the inoffensive and wailing Billie and drove him to the confines of the camp.

By evening Perrault secured another dog, an old husky, long and lean and gaunt, with a battle-scarred face and a single eye which flashed a warning of prowess that commanded respect. He was called Sol-leeks, which means the Angry One. Like Dave, he asked nothing, gave nothing, expected nothing; and when he marched slowly and deliberately into their midst, even Spitz left him alone. He had one peculiarity which Buck was unlucky enough to discover. He did not like to be approached on his blind side. Of this offence Buck was unwittingly guilty, and the first knowledge he had of his indiscretion was when Sol-leeks whirled upon him and slashed his shoulder to the bone for three inches up and down. Forever after Buck avoided his blind side, and to the last of their comradeship had no more trouble. His only apparent ambition, like Dave's, was to be left alone; though, as Buck was afterward to learn, each of them possessed one other and even more vital ambition.

That night Buck faced the great problem of

sleeping. The tent, illumined by a candle, glowed warmly in the midst of the white plain; and when he, as a matter of course, entered it, both Perrault and Francois bombarded him with curses and cooking utensils, till he recovered from his consternation and fled ignominiously into the outer cold. A chill wind was blowing that nipped him sharply and bit with especial venom into his wounded shoulder. He lay down on the snow and attempted to sleep, but the frost soon drove him shivering to his feet. Miserable and disconsolate, he wandered about among the many tents, only to find that one place was as cold as another. Here and there savage dogs rushed upon him, but he bristled his neck-hair and snarled (for he was learning fast), and they let him go his way unmolested.

Finally an idea came to him. He would return and see how his own team-mates were making out. To his astonishment, they had disappeared. Again he wandered about through the great camp, looking for them, and again he returned. Were they in the tent? No, that could not be, else he would not have been driven out. Then where could they possibly be? With drooping tail and shivering body, very forlorn indeed, he aimlessly circled the tent. Suddenly the snow gave

way beneath his fore legs and he sank down. Something wriggled under his feet. He sprang back, bristling and snarling, fearful of the unseen and unknown. But a friendly little yelp reassured him, and he went back to investigate. A whiff of warm air ascended to his nostrils, and there, curled up under the snow in a snug ball, lay Billie. He whined placating, squirmed and wriggled to show his good will and intentions, and even ventured, as a bribe for peace, to lick Buck's face with his warm wet tongue.



So that was the way they did it, eh? Buck confidently selected a spot, and with much fuss and waste effort proceeded to dig a hole for himself. In a trice the heat from his body filled the confined space and he was asleep. The day had been long and arduous, and he slept soundly and comfortably, though he growled and barked and wrestled with bad dreams.

Nor did he open his eyes till roused by the noises of the waking camp. At first he did not know where he was. It had snowed during the night and he was completely buried. The snow walls pressed him on every side, and a great surge of fear swept through

him--the fear of the wild thing for the trap. It was a token that he was harking back through his own life to the lives of his forebears; for he was a civilized dog, an unduly civilized dog, and of his own experience knew no trap and so could not of himself fear it. The muscles of his whole body contracted spasmodically and instinctively, the hair on his neck and shoulders stood on end, and with a ferocious snarl he bounded straight up into the blinding day, the snow flying about him in a flashing cloud. Ere he landed on his feet, he saw the white camp spread out before him and knew where he was and remembered all that had passed from the time he went for a stroll with Manuel to the hole he had dug for himself the night before.

A shout from Francois hailed his appearance. "Wot I say?" the dog-driver cried to Perrault. "Data Buck for sure learn quake as anything."

Perrault nodded gravely. As courier for the Canadian Government, bearing important dispatches, he was anxious to secure the best dogs, and he was particularly gladdened by the possession of Buck. Three more huskies were added to the team inside an hour, making a total of nine, and before another quarter of an hour had passed they were in harness and swinging up the trail toward the Dye Canon. Buck

was glad to be gone, and though the work was hard he found he did not particularly despise it. He was surprised at the eagerness which animated the whole team and which was communicated to him; but still more surprising was the change wrought in Dave and Sol-leeks.

They were new dogs, utterly transformed by the harness. All passiveness and unconcern had dropped from them. They were alert and active, anxious that the work should go well, and fiercely irritable with whatever, by delay or confusion, retarded that work. The toil of the traces seemed the supreme expression of their being, and all that they lived for and the only thing in which they took delight. Never was wheeler or sled dog, pulling in front of him was Buck, then came Sol-leeks; the rest of the team was strung out ahead, single file, to the leader, which position was filled by Spitz. Buck had been purposely placed between Dave and Sol-leeks so that he might receive instruction. Apt scholar that he was, they were equally apt teachers, never allowing him to linger long in error, and enforcing their teaching with their sharp teeth. Dave was fair and very wise. He never nipped Buck without cause, and he never failed to nip him when he stood in need of it. As Francois's whip backed him up, Buck

found it to be cheaper to mend his ways than to retaliate, once, during a brief halt, when he got tangled in the traces and delayed the start, both Dave and Sol-leeks flew at him and administered a sound trouncing. The resulting tangle was even worse, but Buck took good care to keep the traces clear thereafter; and ere the day was done, so well had he mastered his work, his mates about ceased nagging him. Francois's whip snapped less frequently, and Perrault even honored Buck by lifting up his feet and carefully examining them.

It was a hard day's run, up the Canon, through Sheep Camp, past the Scales and the timber line, across glaciers and snowdrifts hundreds of feet deep, and over the great Chicot Divide, which stands between the salt water and the fresh and guards forbiddingly the sad and lonely North. They made good time down the chain of lakes which fills the craters of extinct volcanoes, and late that night pulled into the huge camp at the head of Lake Bennett, where thousands of gold seekers were building boats against the break-up of the ice in the spring. Buck made his hole in the snow and slept the sleep of the exhausted just, but all too early was routed out in the cold darkness and harnessed with his mates to the

sled.

That day they made forty miles, the trail being packed; but the next day, and for many days to follow, they broke their own trail, worked harder, and made poorer time. As a rule, Perrault travelled ahead of the team, packing the snow with webbed shoes to make it easier for them. Francois, guiding the sled at the gee-pole, sometimes exchanged places with him, but not often. Perrault was in a hurry, and he prided himself on his knowledge of ice, which knowledge was indispensable, for the fall ice was very thin, and where there was swift water, there was no ice at all.

Day after day, for days unending, Buck toiled in the traces. Always, they broke camp in the dark, and the first gray of dawn found them hitting the trail with fresh miles reeled off behind them. And always they pitched camp after dark, eating their bit of fish, and crawling to sleep into the snow. Buck was ravenous. The pound and a half of sun-dried salmon, which was his ration for each day, seemed to go nowhere. He never had enough, and suffered from perpetual hunger pangs. Yet the other dogs, because they weighed less and were born to the life, received a pound only of the fish and managed to keep in good condition.

He swiftly lost the fastidiousness which had characterized his old life. A dainty eater, he found that his mates, finishing first, robbed him of his unfinished ration. There was no defending it. While he was fighting off two or three, it was disappearing down the throats of the others. To remedy this, he ate as fast as they; and, so greatly did hunger compel him, he was not above taking what did not belong to him. He watched and learned. When he saw Pike, one of the new dogs, a clever malingerer and thief, slyly steal a slice of bacon when Perrault's back was turned, he duplicated the performance the following day, getting away with the whole chunk. A great uproar was raised, but he was unsuspected; while Dub, an awkward blunderer who was always getting caught, was punished for Buck's misdeed.

This first theft marked Buck as fit to survive in the hostile Northland environment. It marked his adaptability, his capacity to adjust himself to changing conditions, the lack of which would have meant swift and terrible death. It marked, further, the decay or going to pieces of his moral nature, a vain thing and a handicap in the ruthless struggle for existence. It was all well enough in the Southland, under the law of love and fellowship, to respect private property and

personal feelings; but in the Northland, under the law of club and fang, whoso took such things into account was a fool, and in so far as he observed them he would fail to prosper. Not that Buck reasoned it out. He was fit, that was all, and unconsciously he accommodated himself to the new mode of life. All his days, no matter what the odds, he had never run from a fight. But the club of the man in the red sweater had beaten into him a more fundamental and primitive code. Civilized, he could have died for a moral consideration, say the defense of Judge Miller's riding-whip; but the completeness of his DE civilization was now evidenced by his ability to flee from the defense of a moral consideration and so save his hide. He did not steal for joy of it, but because of the clamor of his stomach. He did not rob openly, but stole secretly and cunningly, out of respect for club and fang. In short, the things he did were done because it was easier to do them than not to do them.

His development (or retrogression) was rapid. His muscles became hard as iron, and he grew callous to all ordinary pain. He achieved an internal as well as external economy. He could eat anything, no matter how loathsome or indigestible; and, once eaten, the

juices of his stomach extracted the last least particle of nutriment; and his blood carried it to the farthest reaches of his body, building it into the toughest and stoutest of tissues. Sight and scent became remarkably keen, while his hearing developed such acuteness that in his sleep he heard the faintest sound and knew whether it heralded peace or peril. He learned to bite the ice out with his teeth when it collected between his toes; and when he was thirsty and there was a thick scum of ice over the water hole, he would break it by rearing and striking it with stiff fore legs. His most conspicuous trait was an ability to scent the wind and forecast it a night in advance. No matter how breathless the air when he dug his nest by tree or bank, the wind that later blew inevitably found him to leeward, sheltered and snug.

And not only did he learn by experience, but instincts long dead became alive again. The domesticated generations fell from him. In vague ways he remembered back to the youth of the breed, to the time the wild dogs ranged in packs through the primeval forest and killed their meat as they ran it down. It was no task for him to learn to fight with cut and slash and the quick wolf snap. In this manner had fought forgotten ancestors. They quickened the old

life within him, and the old tricks which they had stamped into the heredity of the breed were his tricks. They came to him without effort or discovery, as though they had been his always. And when, on the still cold nights, he pointed his nose at a star and howled long and wolf like, it was his ancestors, dead and dust, pointing nose at star and howling down through the centuries and through him. And his cadences were their cadences, the cadences which Voiced their woe and what to them was the meaning of the stiffness, and the cold, and dark.

Thus, as token of what a puppet thing life is, the ancient song surged through him and he came into his own again; and he came because men had found a yellow metal in the North, and because Manuel was a gardener's helper whose wages did not lap over the needs of his wife and divers small copies of himself.

The dominant primordial beast was strong in Buck, and under the fierce conditions of trail life it grew and grew. Yet it was a secret growth. His newborn cunning gave him poise and control. He was too busy adjusting himself to the new life to feel at ease, and not only did he not pick fights, but he avoided them whenever possible. A certain deliberateness characterized his attitude. He was not prone to rashness and

precipitate action; and in the bitter hatred between him and Spitz he betrayed no impatience, shunned all offensive acts.

On the other hand, possibly because he divined in Buck a dangerous rival, Spitz never lost an opportunity of showing his teeth. He even went out of his way to bully Buck, striving constantly to start the fight which could end only in the death of one or the other. Early in the trip this might have taken place had it not been for an unwonted accident. At the end of this day they made a bleak and miserable camp on the shore of Lake Le Barge. Driving snow, a wind that cut like a white-hot knife, and darkness had forced them to grope for a camping place. They could hardly have fared worse. At their backs rose a perpendicular wall of rock, and Perrault and Francois were compelled to make their fire and spread their sleeping robes on the ice of the lake itself. The tent they had discarded at Dye in order to travel light. A few sticks of driftwood furnished them with a fire that thawed down through the ice and left them to eat supper in the dark.

Close in under the sheltering rock Buck made his nest. So snug and warm was it, that he was loath to leave it when Francois distributed the fish which he had first

thawed over the fire. But when Buck finished his ration and returned, he found his nest occupied. A warning snarl told him that the trespasser was Spitz. Till now Buck had avoided trouble with his enemy, but this was too much. The beast in him roared. He sprang upon Spitz with a fury which surprised them both, and Spitz particularly, for his whole experience with Buck had gone to teach him that his rival was an unusually timid dog, who managed to hold his own only because of his great weight and size. Francois was surprised, too, when they shot out in a tangle from the disrupted nest and he divined the cause of the trouble. "A-a-ah!" he cried to Buck. "Gif it to them, by Gar! Gif it to them, the dirty tee!"

Spitz was equally willing. He was crying with sheer rage and eagerness as he circled back and forth for a chance to spring in. Buck was no less eager, and no less cautious, as he likewise circled back and forth for the advantage. But it was then that the unexpected happened, the thing which projected their struggle for supremacy far into the future, past many a weary mile of trail and toil.

An oath from Perrault, the resounding impact of a club upon a bony frame, and a shrill yelp of pain, heralded the breaking forth of pandemonium. The

camp was suddenly discovered to be alive with skulking furry forms, - starving huskies, and four or five score of them, who had scented the camp from some Indian village. They had crept in while Buck and Spitz were fighting, and when the two men sprang among them with stout clubs they showed their teeth and fought back. They were crazed by the smell of the food. Perrault found one with head buried in the grub-box. His club landed heavily on the gaunt ribs, and the grub-box was capsized on the ground. On the instant a score of the famished brutes were scrambling for the bread and bacon. The clubs fell upon them unheeded. They yelped and howled under the rain of blows, but struggled none the less madly till the last crumb had been devoured.

In the meantime the astonished team-dogs had burst out of their nests only to be set upon by the fierce invaders. Never had Buck seen such dogs. It seemed as though their bones would burst through their skins. They were mere skeletons, draped loosely in draggled hides, with blazing eyes and slavered fangs. But the hunger-madness made them terrifying, irresistible. There was no opposing them. The team-dogs were swept back against the cliff at the first onset. Buck was beset by three huskies, and in a trice

his head and shoulders were ripped and slashed. The din was frightful. Billie was crying as usual. Dave and Sol-leeks, dripping blood from a score of wounds, were fighting bravely side by side. Joe was snapping like a demon. Once, his teeth closed on the fore leg of a husky, and he crunched down through the bone. Pike, the malingerer, leaped upon the crippled animal, breaking its neck with a quick flash of teeth and a jerk, Buck got a frothing adversary by the throat, and was sprayed with blood when his teeth sank through the jugular. The warm taste of it in his mouth goaded him to greater fierceness. He flung himself upon another, and at the same time felt teeth sink into his own throat. It was Spitz, treacherously attacking from the side.

Perrault and Francois, having cleaned out their part of the camp, hurried to save their sled-dogs. The wild wave of famished beasts rolled back before them, and Buck shook himself free. But it was only for a moment. The two men were compelled to run back to save the grub, upon which the huskies returned to the attack on the team. Billie, terrified into bravery, sprang through the savage circle and fled away over the ice. Pike and Dub followed on his heels, with the rest of the team behind. As Buck drew himself

together to spring after them, out of the tail of his eye he saw Spitz rush upon him with the evident intention of overthrowing him. Once off his feet and under that mass of huskies, there was no hope for him. But he braced himself to the shock of Spitz's charge, then joined the flight out on the lake.

Later, the nine team-dogs gathered together and sought shelter in the forest. Though unpursued, they were in a sorry plight. There was not one who was not wounded in four or five places, while some were wounded grievously. Dub was badly injured in a hind leg; Dolly, the last husky added to the team at Dye, had a badly torn throat; Joe had lost an eye; while Billie, the good-natured, with an ear chewed and rent to ribbons, cried and whimpered throughout the night. At daybreak they limped warily back to camp, to find the marauders gone and the two men in bad tempers. Fully half their grub supply was gone. The huskies had chewed through the sled lashings and canvas coverings. In fact, nothing, no matter how remotely eatable, had escaped them. They had eaten a pair of Perrault's moose-hide moccasins, chunks out of the leather traces, and even two feet of lash from the end of Francois's whip. He broke from a mournful contemplation of it to look over his wounded dogs.

"Ah, my friend's," he said softly, "mobbed it meek you mad dog, dose many bites. Mobbed all mad dog, sacred am! Wot you think, eh, Perrault?"

The courier shook his head dubiously. With four hundred miles of trail still between him and Dawson, he could ill afford to have madness break out among his dogs. Two hours of cursing and exertion got the harnesses into shape, and the wound-stiffened team was under way, struggling painfully over the hardest part of the trail they had yet encountered, and for that matter, the hardest between them and Dawson.

The Thirty Mile River was wide open. Its wild water defied the frost, and it was in the eddies only and in the quiet places that the ice held at all. Six days of exhausting toil were required to cover those thirty terrible miles. And

Terrible they were, for every foot of them was accomplished at the risk of life to dog and man. A dozen times, Perrault, nosing the way broke through the ice bridges, being saved by the long pole he carried, which he so held that it fell each time across the hole made by his body. But a cold snap was on, the thermometer registering fifty below zero, and each time he broke through he was compelled for very life to build a fire and dry his garments.

Nothing daunted him. It was because nothing daunted him that he had been chosen for government courier. He took all manner of risks, resolutely thrusting his little weakened face into the frost and struggling on from dim dawn to dark. He skirted the frowning shores on rim ice that bent and crackled under foot and upon which they dared not halt. Once, the sled broke through, with Dave and Buck, and they were half-frozen and all but drowned by the time they were dragged out. The usual fire was necessary to save them. They were coated solidly with ice, and the two men kept them on the run around the fire, sweating and thawing, so close that they were singed by the flames.

At another time Spitz went through, dragging the whole team after him up to Buck, who strained backward with all his strength, his fore paws on the slippery edge and the ice quivering and snapping all around? But behind him was Dave, likewise straining backward, and behind the sled was Francois, pulling till his tendons cracked.

Again, the rim ice broke away before and behind, and there was no escape except up the cliff. Perrault scaled it by a miracle, while Francois prayed for just that miracle; and with every thong and sled lashing

and the last bit of harness rove into a long rope, the dogs were hoisted, one by one, to the cliff crest. Francois came up last, after the sled and load. Then came the search for a place to descend, which descent was ultimately made by the aid of the rope, and night found them back on the river with a quarter of a mile to the day's credit.

By the time they made the Hootalinqua and good ice, Buck was played out. The rest of the dogs were in like condition; but Perrault, to make up lost time, pushed them late and early. The first day they covered thirty-five miles to the Big Salmon; the next day thirty-five more to the Little Salmon; the third day forty miles, which brought them well up toward the Five Fingers.

Buck's feet were not as compact and hard as the feet of the huskies. His had softened during the many generations since the day his last wild ancestor was tamed by a cave-dweller or river man. All day long he limped in agony, and camp once made, lay down like a dead dog. Hungry as he was, he would

Not move to receive his ration of fish, which Francois had to bring to him. Also, the dog-driver rubbed Buck's feet for half an hour each night after supper, and sacrificed the tops of his own moccasins to make

four moccasins for Buck. This was a great relief, and Buck caused even the weakened face of Perrault to twist itself into a grin one morning, when Francois forgot the moccasins and Buck lay on his back, his four feet waving appealingly in the air, and refused to budge without them. Later his feet grew hard to the trail, and the worn-out foot-gear was thrown away.

At the Pelly one morning, as they were harnessing up, Dolly, who had never been conspicuous for anything, went suddenly mad. She announced her condition by a long, heartbreaking wolf howl that sent every dog bristling with fear, then sprang straight for Buck. He had never seen a dog go mad, nor did he have any reason to fear madness; yet he knew that here was horror, and fled away from it in a panic. Straight away he raced, with Dolly, panting and frothing, one leap behind; nor could she gain on him, so great was his terror, nor could he leave her, so great was her madness. He plunged through the wooded breast of the island, flew down to the lower end, crossed a back channel filled with rough ice to another island, gained a third island, curved back to the main river, and in desperation started to cross it. And all the time, though he did not look back, he could hear her snarling just one leap behind. Francois called to him a

quarter of a mile away and he doubled back, still one leap ahead, gasping painfully for air and putting all his faith in that Francois would save him. The dog-driver held the axe poised in his hand, and as Buck shot past him the axe crashed down upon mad Dolly's head.

Buck staggered over against the sled, exhausted, sobbing for breath, helpless. This was Spitz's opportunity. He sprang upon Buck, and twice his teeth sank into his unresisting foe and ripped and tore the flesh to the bone. Then Francois's lash descended, and Buck had the satisfaction of watching Spitz receive the worst whipping as yet administered to any of the teams. "One devil, data Spitz," remarked Perrault. "Some dam day hem keel data Buck."

"Data Buck two devils," was Francois's rejoinder. "All de tam I watch data Buck I know for sure. Lessen: some dam fine day hem get mad lake hell an' den hem chew data Spitz all up an) spit hem out on de snow. Sure. I know." From then on it was

war between them. Spitz, as lead-dog and acknowledged master of the team, felt his supremacy threatened by this strange Southland dog. And strange Buck was to him, for of the many Southland dogs he had known, not one had shown up worthily in camp and trail. They were all too soft,

dying under the toil, the frost, and starvation. Buck was the exception. He alone endured and prospered, matching the husky in strength, savagery, and cunning. Then he was a masterful dog, and what made him dangerous was the fact that the club of the man in the red sweater had knocked all blind pluck and rashness out of his desire for mastery. He was preeminently cunning, and could bide his time with a patience that was nothing less than primitive.

It was inevitable that the clash for leadership should come. Buck wanted it. He wanted it because it was his nature, because he had been gripped tight by that nameless, incomprehensible pride of the trail and trace--that pride which holds dogs in the toil to the last gasp, which lures them to die joyfully in the harness, and breaks their hearts if they are cut out of the harness. This was the pride of Dave as wheel-dog, of Sol-leeks as he pulled with all his strength; the pride that laid hold of them at break of camp, transforming them from sour and sullen brutes into straining, eager, ambitious creatures; the pride that spurred them on all day and dropped them at pitch of camp at night, letting them fall back into gloomy unrest and unconsent. This was the pride that bore up Spitz and made him thrash the sled-dogs who

blundered and shirked in the traces or hid away at harness-up time in the morning. Likewise it was this pride that made him fear Buck as a possible lead-dog. And this was Buck's pride, too.

He openly threatened the other's leadership. He came between him and the shirks he should have punished. And he did it deliberately. One night there was a heavy snowfall, and in the morning Pike, the malingerer, did not appear. He was securely hidden in his nest under a foot of snow. Francois called him and sought him in vain. Spitz was wild with wrath. He raged through the camp, smelling and digging in every likely place, snarling so frightfully that Pike heard and shivered in his hiding-place.

But when he was at last unearthed, and Spitz flew at him to punish him, Buck flew, with equal rage, in between. So unexpected was it, and so shrewdly managed, that Spitz was hurled backward and off his feet. Pike, who had been trembling abjectly, took heart at this open mutiny, and sprang upon his overthrown leader. Buck, to whom fair play was a forgotten code, likewise sprang upon Spitz. But Francois, chuckling at the incident while unswerving in the administration of justice, brought his lash down upon Buck with all his might. This failed to drive Buck

from his prostrate rival, and the butt of the whip was brought into play. Half-stunned by the blow, Buck was

Knocked backward and the lash laid upon him again and again, while Spitz soundly punished the many times offending Pike.

In the days that followed, as Dawson grew closer and closer, Buck still continued to interfere between Spitz and the culprits; but he did it craftily, when Francois was not around, With the covert mutiny of Buck, a general insubordination sprang up and increased. Dave and Sol-leeks were unaffected, but the rest of the team went from bad to worse. Things no longer went right. There was continual bickering and jangling. Trouble was always afoot, and at the bottom of it was Buck. He kept Francois busy, for the dog-driver was in constant apprehension of the life-and-death struggle between the two which he knew must take place sooner or later; and on more than one night the sounds of quarrelling and strife among the other dogs turned him out of his sleeping robe, fearful that Buck and Spitz were at it.

But the opportunity did not present itself, and they pulled into Dawson one dreary afternoon with the great fight still to come. Here were many men, and

countless dogs, and Buck found them all at work. It seemed the ordained order of things that dogs should work. All day they swung up and down the main street in long teams, and in the night their jingling bells still went by. They hauled cabin logs and firewood, freighted up to the mines, and did all manner of work that horses did in the Santa Clara Valley. Here and there Buck met Southland dogs, but in the main they were the wild wolf husky breed. Every night, regularly, at nine, at twelve, at three, they lifted a nocturnal song, a weird and eerie chant, in which it was Buck's delight to join.

With the aurora borealis flaming coldly overhead, or the stars leaping in the frost dance, and the land numb and frozen under its pall of snow, this song of the huskies might have been the defiance of life, only it was pitched in minor key, with long-drawn wailings and half-sobs, and was more the pleading of life, the articulate travail of existence. It was an old song, old as the breed itself--one of the first songs of the younger world in a day when songs were sad. It was invested with the woe of unnumbered generations, this plaint by which Buck was so strangely stirred. When he moaned and sobbed, it was with the pain of living that was of old the pain of his wild fathers, and

the fear and mystery of the cold and dark that was to them fear and mystery. And that he should be stirred by it marked the completeness with which he harked back through the ages of fire and roof to the raw beginnings of life in the howling ages.

Seven days from the time they pulled into Dawson, they dropped down the steep bank by the Barracks to the Yukon Trail, and pulled for Dye and Salt

Water. Perrault was carrying dispatches if anything more urgent than those he had brought in; also, the travel pride had gripped him, and he purposed to make the record trip of the year. Several things favored him in this. The week's rest had recuperated the dogs and put them in thorough trim. The trail they had broken into the country was packed hard by later journeyers. And further, the police had arranged in two or three places deposits of grub for dog and man, and he was travelling light.

They made Sixty Mile, which is a fifty-mile run, on the first day; and the second day saw them booming up the Yukon well on their way to Pelly. But such splendid running was achieved not without great trouble and vexation on the part of Francois. The insidious revolt led by Buck had destroyed the solidarity of the team. It no longer was as one dog

leaping in the traces. The encouragement Buck gave the rebels led them into all kinds of petty misdemeanors. No more was Spitz a leader greatly to be feared. The old awe departed, and they grew equal to challenging his authority. Pike robbed him of half a fish one night, and gulped it down under the protection of Buck. Another night Dub and Joe fought Spitz and made him forego the punishment they deserved. And even Billie, the good-natured, was less good-natured, and whined not half as placating as in former days. Buck never came near Spitz without snarling and bristling menacingly. In fact, his conduct approached that of a bully, and he was given to swaggering up and down before Spitz's very nose.

The breaking down of discipline likewise affected the dogs in their relations with one another. They quarreled and bickered more than ever among themselves, till at times the camp was a howling bedlam. Dave and Sol-leeks alone were unaltered, though they were made irritable by the unending squabbling. Francois swore strange barbarous oaths, and stamped the snow in futile rage, and tore his hair. His lash was always singing among the dogs, but it was of small avail. Directly his back was turned they were at it again. He backed up Spitz with his whip,

while Buck backed up the remainder of the team. Francois knew he was behind all the trouble, and Buck knew he knew; but Buck was too clever ever again to be caught red-handed. He worked faithfully in the harness, for the toil had become a delight to him; yet it was a greater delight slyly to precipitate a fight amongst his mates and tangle the traces.

At the mouth of the Athena, one night after supper, Dub turned up a snowshoe rabbit, blundered it, and missed. In a second the whole team was in full cry. A hundred yards away was a camp of the Northwest Police, with

Fifty dogs, huskies all, who joined the chase. The rabbit sped down the river, turned off into a small creek, up the frozen bed of which it held steadily. It ran lightly on the surface of the snow, while the dogs ploughed through by main strength. Buck led the pack, sixty strong, around bend after bend, but he could not gain. He lay down low to the race, whining eagerly, his splendid body flashing forward, leap by leap, in the wan white moonlight. And leap by leap, like some pale frost wraith, the snowshoe rabbit flashed on ahead.

All that stirring of old instincts which at stated periods drives men out from the sounding cities to forest and

plain to kill things by chemically propelled leaden pellets, the blood lust, the joy to kill--all this was Buck's, only it was infinitely more intimate. He was ranging at the head of the pack, running the wild thing down, the living meat, to kill with his own teeth and wash his muzzle to the eyes in warm blood.

There is an ecstasy that marks the summit of life, and beyond which life cannot rise. And such is the paradox of living, this ecstasy comes when one is most alive, and it comes as a complete forgetfulness that one is alive. This ecstasy, this forgetfulness of living, comes to the artist, caught up and out of himself in a sheet of flame; it comes to the soldier, war-mad on a stricken field and refusing quarter; and it came to Buck, leading the pack, sounding the old wolf-cry, straining after the food that was alive and that fled swiftly before him through the moonlight. He was sounding the deeps of his nature, and of the parts of his nature that were deeper than he, going back into the womb of Time. He was mastered by the sheer surging of life, the tidal wave of being, the perfect joy of each separate muscle, joint, and sinew in that it was everything that was not death, that it was aglow and rampant, expressing itself in movement, flying exultantly under the stars and over

the face of dead matter that did not move.

But Spitz, cold and calculating even in his supreme moods, left the pack and cut across a narrow neck of land where the creek made a long bend around. Buck did not know of this, and as he rounded the bend, the frost wraith of a rabbit still flitting before him, he saw another and larger frost wraith leap from the overhanging bank into the immediate path of the rabbit. It was Spitz. The rabbit could not turn, and as the white teeth broke its back in midair it shrieked as loudly as a stricken man may shriek. At sound of this, the cry of Life plunging down from Life's apex in the grip of Death, the fall pack at Buck's heels raised a hell's chorus of delight.

Buck did not cry out. He did not check himself, but drove in upon Spitz, shoulder to shoulder, so hard that he missed the throat. They rolled over and

Over in the powdery snow. Spitz gained his feet almost as though he had not been overthrown, slashing Buck down the shoulder and leaping clear. Twice his teeth clipped together, like the steel jaws of a trap, as he backed away for better footing, with lean and lifting lips that writhed and snarled.

In a flash Buck knew it. The time had come. It was to the death. As they circled about, snarling, ears laid

back, keenly watchful for the advantage, the scene came to Buck with a sense of familiarity. He seemed to remember it all,—the white woods, and earth, and moonlight, and the thrill of battle. Over the whiteness and silence brooded a ghostly calm? There was not the faintest whisper of air—nothing moved, not a leaf quivered, the visible breaths of the dogs rising slowly and lingering in the frosty air. They had made short work of the snowshoe rabbit, these dogs that were ill-tamed wolves; and they were now drawn up in an expectant circle. They, too, were silent, their eyes only gleaming and their breaths drifting slowly upward. To Buck it was nothing new or strange, this scene of old time. It was as though it had always been, the wonted way of things.

Spitz was a practiced fighter. From Spitzbergen through the Arctic, and across Canada and the Barrens, he had held his own with all manner of dogs and achieved to mastery over them. Bitter rage was his, but never blind rage. In passion to rend and destroy, he never forgot that his enemy was in like passion to rend and destroy. He never rushed till he was prepared to receive a rush; never attacked till he had first defended that attack.

In vain Buck strove to sink his teeth in the neck of the

big white dog. Wherever his fangs struck for the softer flesh, they were countered by the fangs of Spitz. Fang clashed fang, and lips were cut and bleeding, but Buck could not penetrate his enemy's guard. Then he warmed up and enveloped Spitz in a whirlwind of rushes. Time and time again he tried for the snow-white throat, where life bubbled near to the surface, and each time and every time Spitz slashed him and got away. Then Buck took to rushing, as though for the throat, when, suddenly drawing back his head and curving in from the side, he would drive his shoulder at the shoulder of Spitz, as a ram by which to overthrow him. But instead, Buck's shoulder was slashed down each time as Spitz leaped lightly away.

Spitz was untouched, while Buck was streaming with blood and panting hard. The fight was growing desperate. And all the while the silent and wolfish circle waited to finish off whichever dog went down. As Buck grew winded, Spitz took to rushing, and he kept him staggering for footing. Once Buck went over, and the whole circle of sixty dogs started up; but he recovered himself, almost in midair, and the circle sank down again and waited.

But Buck possessed a quality that made for greatness-

- imagination. He fought by instinct, but he could fight by head as well. He rushed, as though attempting the old shoulder trick, but at the last instant swept low to the snow and in. His teeth closed on Spitz's left fore leg. There was a crunch of breaking bone, and the white dog faced him on three legs. Thrice he tried to knock him over, then repeated the trick and broke the right fore leg. Despite the pain and helplessness, Spitz struggled madly to keep up. He saw the silent circle, with gleaming eyes, lolling tongues, and silvery breaths drifting upward, closing in upon him as he had seen similar circles close in upon beaten antagonists in the past. Only this time he was the one who was beaten.

There was no hope for him. Buck was inexorable. Mercy was a thing reserved for gentler climes. He maneuvered for the final rush. The circle had tightened till he could feel the breaths of the huskies on his flanks. He could see them, beyond Spitz and to either side, half crouching for the spring, their eyes fixed upon him. A pause seemed to fall. Every animal was motionless as though turned to stone. Only Spitz quivered and bristled as he staggered back and forth, snarling with horrible menace, as though to frighten off impending death. Then Buck sprang in and out;

but while he was in, shoulder had at last squarely met shoulder. The dark circle became a dot on the moon-flooded snow as Spitz disappeared from view. Buck stood and looked on, the successful champion, the dominant primordial beast who had made his kill and found it good.

"Eh? Wot I say? I spike true when I say data Buck two devils." This was Francois's speech next morning when he discovered Spitz missing and Buck covered with wounds. He drew him to the fire and by its light pointed them out.

"Data Spitz fight like hell," said Perrault, as he surveyed the gaping rips and cuts.

"An' data Buck fight lake two hells," was Francois's answer. "An' now we make good time. No more Spitz, no more trouble, sure."

While Perrault packed the camp outfit and loaded the sled, the dog-driver proceeded to harness the dogs. Buck trotted up to the place Spitz would have occupied as leader; but Francois, not noticing him, brought Sol-leeks to the coveted position. In his judgment, Sol-leeks was the best lead-dog left. Buck sprang upon Sol-leeks in a fury, driving him back and standing in his place.

"Eh? Eh?" Francois cried, slapping his thighs gleefully. "Look at data Buck. Hem keel data Spitz, hem think to take de job."

"Go 'way, Chook!" he cried, but Buck refused to budge.

He took Buck by the scruff of the neck, and though the dog growled threateningly, dragged him to one side and replaced Sol-leeks. The old dog did not like it, and showed plainly that he was afraid of Buck. Francois was obdurate, but when he turned his back Buck again displaced Sol-leeks, who was not at all unwilling to go.

Francois was angry. "Now, by Gar, I feel you!" he cried, coming back with a heavy club in his hand.

Buck remembered the man in the red sweater, and retreated slowly; nor did he attempt to charge in when Sol-leeks was once more brought forward. But he circled just beyond the range of the club, snarling with bitterness and rage; and while he circled he watched the club so as to dodge it if thrown by Francois, for he was become wise in the way of clubs. The driver went about his work, and he called to Buck when he was ready to put him in his old place in front of Dave. Buck retreated two or three steps. Francois followed him up, whereupon he again retreated.

After some time of this, Francois threw down the club, thinking that Buck feared a thrashing. But Buck was in open revolt. He wanted, not to escape a clubbing, but to have the leadership. It was his by right. He had earned it, and he would not be content with less.

Perrault took a hand. Between them they ran him about for the better part of an hour. They threw clubs at him. He dodged. They cursed him, and his fathers and mothers before him, and all his seed to come after him down to the remotest generation, and every hair on his body and drop of blood in his veins; and he answered curse with snarl and kept out of their reach. He did not try to run away, but retreated around and around the camp, advertising plainly that when his desire was met, he would come in and be good.

Francois sat down and scratched his head. Perrault looked at his watch and swore. Time was flying, and they should have been on the trail an hour gone. Francois scratched his head again. He shook it and grinned sheepishly at the courier, who shrugged his shoulders in sign that they were beaten. Then Francois went up to where Sol-leeks stood and called to Buck. Buck laughed, as dogs laugh, yet kept his distance. Francois unfastened Sol-lens's traces and

put him back in his old place. The team stood harnessed to the sled in an unbroken line, ready for the trail. There was no place for Buck save at the front. Once more Francois called, and once more Buck laughed and kept away.

"Throw down de club," Perrault commanded. Francois complied, whereupon Buck trotted in, laughing triumphantly, and swung around into position at the head of the team. His traces were fastened, the sled broken out, and with both men running they dashed out on to the river trail.

Highly as the dog-driver had fore valued Buck, with his two devils, he found, while the day was yet young, that he had undervalued. At a bound Buck took up the duties of leadership; and where judgment was required, and quick thinking and quick acting, he showed himself the superior even of Spitz, of whom Francois had never seen an equal.

But it was in giving the law and making his mates live up to it that Buck excelled. Dave and Sol-leeks did not mind the change in leadership. It was none of their business. Their business was to toil, and toil mightily, in the traces. So long as that were not interfered with, they did not care what happened. Billie, the good-natured, could lead for all they cared,

so long as he kept order. The rest of the team, however, had grown unruly during the last days of Spitz, and their surprise was great now that Buck proceeded to lick them into shape.

Pike, who pulled at Buck's heels, and who never put an ounce more of his weight against the breast-band than he was compelled to do, was swiftly and repeatedly shaken for loafing; and ere the first day was done he was pulling more than ever before in his life. The first night in camp, Joe, the sour one, was punished roundly-- a thing that Spitz had never succeeded in doing. Buck simply smothered him by virtue of superior weight, and cut him up till he ceased snapping and began to whine for mercy.

The general tone of the team picked up immediately. It recovered its old-time solidarity, and once more the dogs leaped as one dog in the traces. At the Rink Rapids two native huskies, Teak and Kona, were added; and the celerity with which Buck broke them in took away Francois's breath.

"Nevarez such a dog as data Buck!" he cried. "No, Nevarez! Hem worth one thousand' dollar, by Gar! Eh? Wot you say, Perrault?"

And Perrault nodded. He was ahead of the record then, and gaining day by day. The trail was in

excellent condition, well packed and hard, and there was no new-fallen snow with which to contend. It was not too cold. The temperature dropped to fifty below zero and remained there the whole trip. The men rode and ran by turn, and the dogs were kept on the jump, with but infrequent stoppages.

The Thirty Mile River was comparatively coated with ice, and they covered in one day going out what had taken them ten days coming in. In one run they made a sixty-mile dash from the foot of Lake Le Barge to the White Horse Rapids. Across Marsh, Tagish, and Bennett (seventy miles of lakes), they flew so fast that the man whose turn it was to run towed behind the sled at the end of a rope. And on the last night of the second week they topped White Pass and dropped down the sea slope with the lights of Skagway and of the shipping at their feet.

It was a record run. Each day for fourteen days they had averaged forty miles. For three days Perrault and Francois threw chests up and down the main street of Skagway and were deluged with invitations to drink, while the team was the constant center of a worshipful crowd of dog-busters and mushers. Then three or four western bad men aspired to clean out the town, were riddled like pepper-boxes for their

pains, and public interest turned to other idols. Next came official orders. Francois called Buck to him, threw his arms around him, and wept over him. And that was the last of Francois and Perrault. Like other men, they passed out of Buck's life for good.

A Scotch half-breed took charge of him and his mates, and in company with a dozen other dog-teams he started back over the weary trail to Dawson. It was no light running now, nor record time, but heavy toil each day, with a heavy load behind; for this was the mail train, carrying word from the world to the men who sought gold under the shadow of the Pole.

Buck did not like it, but he bore up well to the work, taking pride in it after the manner of Dave and Sol-leeks, and seeing that his mates, whether they prided in it or not, did their fair share. It was a monotonous life, operating with machine-like regularity. One day was very like another. At a certain time each morning the cooks turned out, fires were built, and breakfast was eaten. Then, while some broke camp, others harnessed the dogs, and they were under way an hour or so before the darkness fell which gave warning of dawn. At night, camp was made. Some pitched the flies, others cut firewood and pine boughs for the beds, and still others carried water or ice for

the cooks. Also, the dogs were fed. To them, this was the one feature of the day, though it was good to loaf around, after the fish was eaten, for an hour or so with the other dogs, of which there were five score and odd. There were fierce fighters among them, but three battles with the fiercest brought Buck to mastery, so that when he bristled and showed his teeth they got out of his way.

Best of all, perhaps, he loved to lie near the fire, hind legs crouched under him, fore legs stretched out in front, head raised, and eyes blinking dreamily at the flames. Sometimes he thought of Judge Miller's big house in the sun-kissed Santa Clara Valley, and of the cement swimming-tank, and Ysabel, the Mexican hairless, and Toots, the Japanese pug; but oftener he remembered the man in the red sweater, the death of Curly, the great fight with Spitz, and the good things he had eaten or would like to eat. He was not homesick. The Sunland was very dim and distant, and such memories had no power over him. Far more potent were the memories of his heredity that gave things he had never seen before a seeming familiarity; the instincts (which were but the memories of his ancestors become habits) which had lapsed in later days, and still later, in him, quickened and become

alive again.

Sometimes as he crouched there, blinking dreamily at the flames, it seemed that the flames were of another fire, and that as he crouched by this other fire he saw another and different man from the half-breed cook before him. This other man was shorter of leg and longer of arm, with muscles that were stringy and knotty rather than rounded and swelling. The hair of this man was long and matted, and his head slanted back under it from the eyes. He uttered strange sounds, and seemed very much afraid of the darkness, into which he peered continually, clutching in his hand, which hung midway between knee and foot, a stick with a heavy stone made fast to the end. He was all but naked, a ragged and fire-scorched skin hanging part way down his back, but on his body there was much hair. In some places, across the chest and shoulders and down the outside of the arms and thighs, it was matted into almost a thick fur. He did not stand erect, but with trunk inclined forward from the hips, on legs that bent at the knees. About his body there was a peculiar springiness, or resiliency, almost catlike, and a quick alertness as of one who lived in perpetual fear of things seen and unseen.

At other times this hairy man squatted by the fire

with head between his legs and slept. On such occasions his elbows were on his knees, his hands clasped above his head as though to shed rain by the hairy arms. And beyond that fire, in the circling darkness, Buck could see many gleaming coals, two by two, always two by two, which he knew to be the eyes of great beasts of prey. And he could hear the crashing of their bodies through the undergrowth, and the noises they made in the night. And dreaming there by the Yukon bank, with lazy eyes blinking at the fire, these sounds and sights of another world would make the hair to rise along his back and stand on end across his shoulders and up his neck, till he whimpered low and suppressed, or growled softly, and the half-breed cook shouted at him, "Hey, you Buck, wake up!" Whereupon the other world would vanish and the real world come into his eyes, and he would get up and yawn and stretch as though he had been asleep.

It was a hard trip, with the mail behind them, and the heavy work wore them down. They were short of weight and in poor condition when they made Dawson, and should have had a ten days' or a week's rest at least. But in two days' time they dropped down the Yukon bank from the Barracks, loaded with

letters for the outside. The dogs were tired, the drivers grumbling, and to make matters worse, it snowed every day. This meant a soft trail, greater friction on the runners, and heavier pulling for the dogs; yet the drivers were fair through it all, and did their best for the animals.

Each night the dogs were attended to first. They ate before the drivers ate, and no man sought his sleeping-robe till he had seen to the feet of the dogs he drove. Still, their strength went down. Since the beginning of the winter they had travelled eighteen hundred miles, dragging sleds the whole weary distance; and eighteen hundred miles will tell upon life of the toughest. Buck stood it, keeping his mates up to their work and maintaining discipline, though he, too, was very tired. Billie cried and whimpered regularly in his sleep each night. Joe was sourer than ever, and Sol-leeks was unapproachable, blind side or other side.

But it was Dave who suffered most of all. Something had gone wrong with him. He became more morose and irritable, and when camp was pitched at once made his nest, where his driver fed him. Once out of the harness and down, he did not get on his feet again till harness-up time in the morning. Sometimes, in the

traces, when jerked by a sudden stoppage of the sled, or by straining to start it, he would cry out with pain. The driver examined him, but could find nothing. All the drivers became interested in his case. They talked it over at meal-time, and over their last pipes before going to bed, and one night they held a consultation. He was brought from his nest to the fire and was pressed and prodded till he cried out many times. Something was wrong inside, but they could locate no broken bones, could not make it out.

By the time Cassia Bar was reached, he was so weak that he was falling repeatedly in the traces. The Scotch half-breed called a halt and took him out of the team, making the next dog, Sol-leeks, fast to the sled. His intention was to rest Dave, letting him run free behind the sled. Sick as he was, Dave resented being taken out, grunting and growling while the traces were unfastened, and whimpering broken-heartedly when he saw Sol-leeks in the

Position he had held and served so long. For the pride of trace and trail was his, and, sick unto death, he could not bear that another dog should do his work.

When the sled started, he floundered in the soft snow alongside the beaten trail, attacking Sol-leeks with his teeth, rushing against him and trying to thrust him off into the soft snow on the other side, striving to leap inside his traces and get between him and the sled, and all the while whining and yelping and crying with grief and pain. The half-breed tried to drive him away with the whip; but he paid no heed to the stinging lash, and the man had not the heart to strike harder. Dave refused to run quietly on the trail behind the sled, where the going was easy, but continued to flounder alongside in the soft snow, where the going was most difficult, till exhausted. Then he fell, and lay where he fell, howling lugubriously as the long train of sleds churned by.

With the last remnant of his strength he managed to stagger along behind till the train made another stop, when he floundered past the sleds to his own, where he stood alongside Sol-leeks. His driver lingered a moment to get a light for his pipe from the man behind. Then he returned and started his dogs. They swung out on the trail with remarkable lack of

exertion, turned their heads uneasily, and stopped in surprise. The driver was surprised, too; the sled had not moved. He called his comrades to witness the sight. Dave had bitten through both of Sol-lens's traces, and was standing directly in front of the sled in his proper place.

He pleaded with his eyes to remain there. The driver was perplexed. His comrades talked of how a dog could break its heart through being denied the work that killed it, and recalled instances they had known, where dogs, too old for the toil, or injured, had died because they were cut out of the traces. Also, they held it a mercy, since Dave was to die anyway, that he should die in the traces, heart-easy and content. So he was harnessed in again, and proudly he pulled as of old, though more than once he cried out involuntarily from the bite of his inward hurt. Several times he fell down and was dragged in the traces, and once the sled ran upon him so that he limped thereafter in one of his hind legs.

But he held out till camp was reached, when his driver made a place for him by the fire. Morning found him too weak to travel. At harness-up time he tried to crawl to his driver. By convulsive efforts he got on his feet, staggered, and fell. Then he wormed his way

forward slowly toward where the harnesses were being put on his mates. He would advance his fore legs and drag up his body with a sort of hitching movement, when he would advance his fore legs

And hitch ahead again for a few more inches. His strength left him, and the last his mate's saw of him he lay gasping in the snow and yearning toward them. But they could hear him mournfully howling till they passed out of sight behind a belt of river timber.

Here the train was halted. The Scotch half-breed slowly retraced his steps to the camp they had left. The men ceased talking. A revolver-shot rang out. The man came back hurriedly. The whips snapped, the bells tinkled merrily, the sleds churned along the trail; but Buck knew, and every dog knew, what had taken place behind the belt of river trees.

When John Thornton froze his feet in the previous December his partners had made him comfortable and left him to get well, going on themselves up the river to get out a raft of saw-logs for Dawson. He was still limping slightly at the time he rescued Buck, but with the continued warm weather even the slight limp left him. And here, lying by the river bank through the long spring days, watching the running water, listening lazily to the songs of birds and the

hum of nature, Buck slowly won back his strength.

A rest comes very good after one has travelled three thousand miles, and it must be confessed that Buck waxed lazy as his wounds healed, his muscles swelled out, and the flesh came back to cover his bones. For that matter, they were all loafing,--Buck, John Thornton, and Skeet and Nag,--waiting for the raft to come that was to carry them down to Dawson. Skeet was a little Irish setter who early made friends with Buck, who, in a dying condition, was unable to resent her first advances. She had the doctor trait which some dogs possess; and as a mother cat washes her kittens, so she washed and cleansed Buck's wounds. Regularly, each morning after he had finished his breakfast, she performed her self-appointed task, till he came to look for her ministrations as much as he did for Thornton's. Nag, equally friendly, though less demonstrative, was a huge black dog, half bloodhound and half deerhound, with eyes that laughed and a boundless good nature.

To Buck's surprise these dogs manifested no jealousy toward him. They seemed to share the kindness and largeness of John Thornton. As Buck grew stronger they enticed him into all sorts of ridiculous games, in which Thornton himself could not forbear to join; and

in this fashion Buck romped through his convalescence and into a new existence. Love, genuine passionate love, was his for the first time. This he had never experienced at Judge Miller's down in the sun-kissed Santa Clara Valley. With the Judge's sons, hunting and tramping, it had been a working partnership; with the Judge's grandsons, a sort of pompous guardianship; and with the Judge himself, a stately and dignified friendship. But love that was feverish and burning, that was adoration, that was madness, it had taken John Thornton to arouse.

This man had saved his life, which was something; but, further, he was the ideal master. Other men saw to the welfare of their dogs from a sense of duty and business expediency; he saw to the welfare of his as if they were his own children, because he could not help it. And he saw further. He never forgot a kindly greeting or a cheering word, and to sit down for a long talk with them ("gas" he called it) was as much his delight as theirs. He had a way of taking Buck's head roughly between his hands, and resting his own head upon Buck's, of shaking him back and forth, the while calling him ill names that to Buck were love names. Buck knew no greater joy than that rough embrace and the sound of murmured oaths, and at

each jerk back and forth it seemed that his heart would be shaken out of his body so great was its ecstasy. And when, released, he sprang to his feet, his mouth laughing, and his eyes eloquent, and his throat vibrant with unuttered sound, and in that fashion remained without movement, John Thornton would reverently exclaim, "God! You can all but speak!"

Buck had a trick of love expression that was akin to hurt. He would often seize Thornton's hand in his mouth and close so fiercely that the flesh bore the impress of his teeth for some time afterward. And as Buck understood the oaths to be love words, so the man understood this feigned bite for a caress. For the most part, however, Buck's love was expressed in adoration. While he went wild with happiness when Thornton touched him or spoke to him, he did not seek these tokens. Unlike Skeet, who was wont to shove her nose under Thornton's hand and nudge and nudge till petted, or Nag, who would stalk up and rest his great head on Thornton's knee, Buck was content to adore at a distance. He would lie by the hour, eager, alert, at Thornton's feet, looking up into his face, dwelling upon it, studying it, following with keenest interest each fleeting expression, every movement or change of feature. Or, as chance might

have it, he would lie farther away, to the side or rear, watching the outlines of the man and the occasional movements of his body. And often, such was the communion in which they lived, the strength of Buck's gaze would draw John Thornton's head around, and he would return the gaze, without speech, his heart shining out of his eyes as Buck's heart shone out.

For a long time after his rescue, Buck did not like Thornton to get out of his sight. From the moment he left the tent to when he entered it again, Buck would follow at his heels. His transient masters since he had come into the Northland had bred in him a fear that no master could be permanent. He was afraid that Thornton would pass out of his life as Perrault and Francois and the Scotch half-breed had passed out. Even in the night, in his dreams, he was haunted by this fear. At such times he would shake off sleep and creep through the chill to the flap of the tent, where he would stand and listen to the sound of his master's breathing.

But in spite of this great love he bore John Thornton, which seemed to bespeak the soft civilizing influence, the strain of the primitive, which the Northland had aroused in him, remained alive and

active. Faithfulness and devotion, things born of fire and roof, were his; yet he retained his wildness and wiliness. He was a thing of the wild, come in from the wild to sit by John Thornton's fire, rather than a dog of the soft Southland stamped with the marks of generations of civilization. Because of his very great love, he could not steal from this man, but from any other man, in any other camp, he did not hesitate an instant; while the cunning with which he stole enabled him to escape detection.

His face and body were scored by the teeth of many dogs, and he fought as fiercely as ever and more shrewdly. Skeet and Nag were too good-natured for quarrelling,—besides, they belonged to John Thornton; but the strange dog, no matter what the breed or valor, swiftly acknowledged Buck's supremacy or found himself struggling for life with a terrible antagonist. And Buck was merciless. He had learned well the law of club and fang, and he never forewent an advantage or drew back from a foe he had started on the way to Death. He had lessoned from Spitz, and from the chief fighting dogs of the police and mail, and knew there was no middle course. He must master or be mastered; while to show mercy was a weakness. Mercy did not exist in

the primordial life. It was misunderstood for fear, and such misunderstandings made for death. Kill or be killed, eat or be eaten, was the law; and this mandate, down out of the depths of Time, he obeyed.

He was older than the days he had seen and the breaths he had drawn. He linked the past with the present, and the eternity behind him throbbed through him in a mighty rhythm to which he swayed as the tides and seasons swayed. He sat by John Thornton's fire, a broad-breasted dog, white-fanged and long-furred; but behind him were the shades of all manner of dogs, half-wolves and wild wolves, urgent and prompting, tasting the savor of the meat he ate, thirsting for the water he drank, scenting the wind with him, listening with him and telling him the sounds made by the wild life in the forest, dictating his

Moods, directing his actions, lying down to sleep with him when he lay down, and dreaming with him and beyond him and becoming themselves the stuff of his dreams.

So peremptorily did these shades beckon him that each day mankind and the claims of mankind slipped farther from him? Deep in the forest a call was sounding, and as often as he heard this call, mysteriously thrilling and luring, he felt compelled to turn his back upon the fire and the beaten earth around it, and to plunge into the forest, and on and on, he knew not where or why; nor did he wonder where or why, the call sounding imperiously, deep in the forest. But as often as he gained the soft unbroken earth and the green shade, the love for John Thornton drew him back to the fire again.

Thornton alone held him. The rest of mankind was as nothing. Chance travelers might praise or pet him; but he was cold under it all, and from a too demonstrative man he would get up and walk away. When Thornton's partners, Hans and Pete, arrived on the long-expected raft, Buck refused to notice them till he learned they were close to Thornton; after that he tolerated them in a passive sort of way, accepting favors from them as though he favored them by

accepting. They were of the same large type as Thornton, living close to the earth, thinking simply and seeing clearly; and ere they swung the raft into the big eddy by the sawmill at Dawson, they understood Buck and his ways, and did not insist upon an intimacy such as obtained with Skeet and Nig.

For Thornton, however, his love seemed to grow and grow. He, alone among men, could put a pack upon Buck's back in the summer travelling. Nothing was too great for Buck to do, when Thornton commanded. One day (they had grub-staked themselves from the proceeds of the raft and left Dawson for the headwaters of the Tanana) the men and dogs were sitting on the crest of a cliff which fell away, straight down, to naked bed-rock three hundred feet below. John Thornton was sitting near the edge, Buck at his shoulder. A thoughtless whim seized Thornton, and he drew the attention of Hans and Pete to the experiment he had in mind. "Jump, Buck!" he commanded, sweeping his arm out and over the chasm. The next instant he was grappling with Buck on the extreme edge, while Hans and Pete were dragging them back into safety.

"It's uncanny," Pete said, after it was over and they

had caught their speech. Thornton shook his head. "No, it is splendid, and it is terrible, too. Do you know, it sometimes makes me afraid?"

"I'm not hankering to be the man that lays hands on you while he's around," Pete announced conclusively, nodding his head toward Buck.

"Pie Jingo!" was Hans's contribution. "Not mine self either."

It was at Circle City, ere the year was out, that Pete's apprehensions were realized. "Black" Burton, a man evil-tempered and malicious, had been picking a quarrel with a tenderfoot at the bar, when Thornton stepped good-naturedly between. Buck, as was his custom, was lying in a corner, head on paws, watching his master's every action. Burton struck out, without warning, straight from the shoulder. Thornton was sent spinning, and saved himself from falling only by clutching the rail of the bar.

Those who were looking on heard what was neither bark nor yelp, but a something which is best described as a roar, and they saw Buck's body rise up in the air as he left the floor for Burton's throat. The man saved his life by instinctively throwing out his arm, but was hurled backward to the floor with Buck on top of him. Buck loosed his teeth from the flesh of

the arm and drove in again for the throat. This time the man succeeded only in partly blocking, and his throat was torn open. Then the crowd was upon Buck, and he was driven off; but while a surgeon checked the bleeding, he prowled up and down, growling furiously, attempting to rush in, and being forced back by an array of hostile clubs. A "miners' meeting," called on the spot, decided that the dog had sufficient provocation, and Buck was discharged. But his reputation was made, and from that day his name spread through every camp in Alaska.

Later on, in the fall of the year, he saved John Thornton's life in quite another fashion. The three partners were lining a long and narrow poling-boat down a bad stretch of rapids on the Forty-Mile Creek. Hans and Pete moved along the bank, snubbing with a thin Manila rope from tree to tree, while Thornton remained in the boat, helping its descent by means of a pole, and shouting directions to the shore. Buck, on the bank, worried and anxious, kept abreast of the boat, his eyes never off his master.

At a particularly bad spot, where a ledge of barely submerged rocks jutted out into the river, Hans cast off the rope, and, while Thornton poled the boat out into the stream, ran down the bank with the end in

his hand to snub the boat when it had cleared the ledge. This it did, and was flying down-stream in a current as swift as a mill-race, when Hans checked it with the rope and checked too suddenly. The boat flirted over and snubbed in to the bank bottom up, while Thornton, flung sheer out of it, was carried down-stream toward the worst part of the rapids, a stretch of wild water in which no swimmer could live. Buck had sprung in on the instant; and at the end of three hundred yards, amid a mad swirl of water, he overhauled Thornton. When he felt him grasp his tail, Buck headed for the bank, swimming with all his splendid strength. But the progress shoreward was slow; the progress down-stream amazingly rapid. From below came the fatal roaring where the wild current went wilder and was rent in shreds and spray by the rocks which thrust through like the teeth of an enormous comb. The suck of the water as it took the beginning of the last steep pitch was frightful, and Thornton knew that the shore was impossible. He scraped furiously over a rock, bruised across a second, and struck a third with crushing force. He clutched its slippery top with both hands, releasing Buck, and above the roar of the churning water shouted: "Go, Buck! Go!"

Buck could not hold his own, and swept on downstream, struggling desperately, but unable to win back. When he heard Thornton's command repeated, he partly reared out of the water, throwing his head high, as though for a last look, then turned obediently toward the bank. He swam powerfully and was dragged ashore by Pete and Hans at the very point where swimming ceased to be possible and destruction began.

They knew that the time a man could cling to a slippery rock in the face of that driving current was a matter of minutes, and they ran as fast as they could up the bank to a point far above where Thornton was hanging on. They attached the line with which they had been snubbing the boat to Buck's neck and shoulders, being careful that it should neither strangle him nor impede his swimming, and launched him into the stream. He struck out boldly, but not straight enough into the stream. He discovered the mistake too late, when Thornton was abreast of him and a bare half-dozen strokes away while he was being carried helplessly past.

Hans promptly snubbed with the rope, as though Buck were a boat. The rope thus tightening on him in the sweep of the current, he was jerked under the

surface, and under the surface he remained till his body struck against the bank and he was hauled out. He was half drowned, and Hans and Pete threw themselves upon him, pounding the breath into him and the water out of him. He staggered to his feet and fell down. The faint sound of Thornton's voice came to them, and though they could not make out the words of it, they knew that he was in his extremity. His master's voice acted on Buck like an electric

Shock, He sprang to his feet and ran up the bank ahead of the men to the point of his previous departure.

Again the rope was attached and he was launched, and again he struck out, but this time straight into the stream. He had miscalculated once, but he would not be guilty of it a second time. Hans paid out the rope, permitting no slack, while Pete kept it clear of coils. Buck held on till he was on a line straight above Thornton; then he turned, and with the speed of an express train headed down upon him. Thornton saw him coming, and, as Buck struck him like a battering ram, with the whole force of the current behind him, he reached up and closed with both arms around the shaggy neck. Hans snubbed the rope around the tree, and Buck and Thornton were jerked under the water.

Strangling, suffocating, sometimes one uppermost and sometimes the other, dragging over the jagged bottom, smashing against rocks and snags, they veered in to the bank.

Horn ton came to, belly downward and being violently propelled back and forth across a drift log by Hans and Pete. His first glance was for Buck, over whose limp and apparently lifeless body Nag was setting up a howl, while Skeet was licking the wet face and closed eyes. Thornton was himself bruised and battered, and he went carefully over Buck's body, when he had been brought around, finding three broken ribs.

"That settles it," he announced. "We camp right here." And camp they did, till Buck's ribs knitted and he was able to travel.

That winter, at Dawson, Buck performed another exploit, not so heroic, perhaps, but one that put his name many notches higher on the totem-pole of Alaskan fame. This exploit was particularly gratifying to the three men; for they stood in need of the outfit which it furnished, and were enabled to make a long-desired trip into the virgin East, where miners had not yet appeared. It was brought about by a conversation in the Eldorado Saloon, in which men waxed boastful

of their favorite dogs. Buck, because of his record, was the target for these men, and Thornton was driven stoutly to defend him. At the end of half an hour one man stated that his dog could start a sled with five hundred pounds and walk off with it; a second bragged six hundred for his dog; and a third, seven hundred.

"Pooh! Pooh!" said John Thornton; "Buck can start a thousand pounds."

"And break it out? And walk off with it for a hundred yards?" demanded Mathewson, a Bonanza King, he of the seven hundred vaunt.

"And break it out, and walk off with it for a hundred yards," John Thornton said coolly. "Well," Mathewson said, slowly and deliberately, so that all could hear, "I've got a thousand dollars that says he can't. And there it is." So saying, he slammed a sack of gold dust of the size of a bologna sausage down upon the bar.

Nobody spoke. Thornton's bluff, if bluff it was, had been called. He could feel a flush of warm blood creeping up his face. His tongue had tricked him. He did not know whether Buck could start a thousand pounds. Half a ton! The enormousness of it appalled him. He had great faith in Buck's strength and had often thought him capable of starting such a load; but

never, as now, had he faced the possibility of it, the eyes of a dozen men fixed upon him, silent and waiting. Further, he had no thousand dollars; nor had Hans or Pete.

"I've got a sled standing outside now, with twenty fifty pound sacks of flour on it," Mathewson went on with brutal directness; "so don't let that hinder you." Thornton did not reply. He did not know what to say. He glanced from face to face in the absent way of a man who has lost the power of thought and is seeking somewhere to find the thing that will start it going again. The face of Jim O'Brien, a Mastodon King and old-time comrade, caught his eyes. It was as a cue to him, seeming to rouse him to do what he would never have dreamed of doing.

"Can you lend me a thousand?" he asked, almost in a whisper.

"Sure," answered O'Brien, thumping down a plethoric sack by the side of Mathewson's. "Though it's little faith I'm having, John, that the beast can do the trick."

The Eldorado emptied its occupants into the street to see the test. The tables were deserted, and the dealers and gamekeepers came forth to see the outcome of the wager and to lay odds. Several

hundred men, furred and mattered, banked around the sled within easy distance. Mathewson's sled, loaded with a thousand pounds of flour, had been standing for a couple of hours, and in the intense cold (it was sixty below zero) the runners had frozen fast to the hard-packed snow. Men offered odds of two to one that Buck could not budge the sled. A quibble arose concerning the phrase "break out." O'Brien contended it was Thornton's privilege to knock the runners loose, leaving Buck to "break it out" from a dead standstill. Mathewson insisted that the phrase included breaking the runners from the frozen grip of the snow. A majority of the men who had witnessed the making of the bet decided in his favor, whereat the odds went up to three to one against Buck.

There were no takers. Not a man believed him capable of the feat. Thornton had been hurried into the wager, heavy with doubt; and now that he looked at the sled itself, the concrete fact, with the regular team of ten dogs curled up in the snow before it, the more impossible the task appeared. Mathewson waxed jubilant.

"Three to one!" he proclaimed. "I'll lay you another thousand at that figure, Thornton. What dye say?"

Thornton's doubt was strong in his face, but his

fighting spirit was aroused-- the fighting spirit that soars above odds, fails to recognize the impossible, and is deaf to all save the clamor for battle. He called Hans and Pete to him. Their sacks were slim, and with his own the three partners could rake together only two hundred dollars. In the ebb of their fortunes, this sum was their total capital; yet they laid it unhesitatingly against Mathewson's six hundred.

The team of ten dogs was unhitched, and Buck, with his own harness, was put into the sled. He had caught the contagion of the excitement, and he felt that in some way he must do a great thing for John Thornton. Murmurs of admiration at his splendid appearance went up. He was in perfect condition, without an ounce of superfluous flesh, and the one hundred and fifty pounds that he weighed were so many pounds of grit and virility. His furry coat shone with the sheen of silk. Down the neck and across the shoulders, his mane, in repose as it was, half bristled and seemed to lift with every movement, as though excess of vigor made each particular hair alive and active. The great breast and heavy fore legs were no more than in proportion with the rest of the body, where the muscles showed in tight rolls underneath the skin. Men felt these muscles and proclaimed them hard as

iron, and the odds went down to two to one.

"Gad, sir! Gad, sir!" stuttered a member of the latest dynasty, a king of the Skookum Benches. "I offer you eight hundred for him, sir, before the test, sir; eight hundred just as he stands."

Thornton shook his head and stepped to Buck's side.

"You must stand off from him," Mathewson protested. "Free play and plenty of room."

The crowd fell silent; only could be heard the voices of the gamblers vainly offering two to one. Everybody acknowledged Buck a magnificent animal, but twenty fifty-pound sacks of flour bulked too large in their eyes for them to loosen their pouch-strings.

Thornton knelt down by Buck's side. He took his head in his two hands and rested cheek on cheek. He did not playfully shake him, as was his wont, or murmur soft love curses; but he whispered in his ear. "As you love me, Buck.

As you love me," was what he whispered. Buck whined with suppressed eagerness.

The crowd was watching curiously. The affair was growing mysterious. It seemed like a conjuration. As Thornton got to his feet, Buck seized his mattered hand between his jaws, pressing in with his teeth and releasing slowly, half-reluctantly. It was the answer,

in terms, not of speech, but of love. Thornton stepped well back.

"Now, Buck," he said.

Buck tightened the traces, then slacked them for a matter of several inches. It was the way he had learned.

"Gee!" Thornton's voice rang out, sharp in the tense silence.

Buck swung to the right, ending the movement in a plunge that took up the slack and with a sudden jerk arrested his one hundred and fifty pounds. The load quivered, and from under the runners arose a crisp crackling.

"Haw!" Thornton commanded.

Buck duplicated the man oeuvre, this time to the left. The crackling turned into a snapping, the sled pivoting and the runners slipping and grating several inches to the side. The sled was broken out. Men were holding their breaths, intensely unconscious of the fact.

"Now, MUSH!"

Thornton's command cracked out like a pistol-shot. Buck threw himself forward, tightening the traces with a jarring lunge. His whole body was gathered compactly together in the tremendous effort, the muscles writhing and knotting like live things under

the silky fur. His great chest was low to the ground, his head forward and down, while his feet were flying like mad, the claws scarring the hard-packed snow in parallel grooves. The sled swayed and trembled, half-started forward. One of his feet slipped, and one man groaned aloud. Then the sled lurched ahead in what appeared a rapid succession of jerks, though it never really came to a dead stop again ...half an inch...an inch . . . two inches. . . The jerks perceptibly diminished; as the sled gained momentum, he caught them up, till it was moving steadily along. Men gasped and began to breathe again, unaware that for a moment they had ceased to breathe. Thornton was running behind, encouraging Buck with short, cheery words. The distance had been measured off, and as he neared the pile of firewood which marked the end of the hundred yards, a cheer began to grow and grow, which burst into a roar as he passed the firewood and halted at command. Every man was tearing himself loose, even Mathewson. Hats and mittens were flying in the air. Men were shaking Hands, it did not matter with whom, and bubbling over in a general incoherent babel.

But Thornton fell on his knees beside Buck. Head was against head, and he was shaking him back and forth.

Those who hurried up heard him cursing Buck, and he cursed him long and fervently, and softly and lovingly. "Gad, sir! Gad, sir!" spluttered the Skookum Bench king. "I'll give you a thousand for him, sir, a thousand, sir--twelve hundred, sir."

Thornton rose to his feet. His eyes were wet. The tears were streaming frankly down his cheeks. "Sir," he said to the Skookum Bench king, "no, sir. You can go to hell, sir. It's the best I can do for you, sir."

Buck seized Thornton's hand in his teeth. Thornton shook him back and forth. As though animated by a common impulse, the onlookers drew back to a respectful distance; nor were they again indiscreet enough to interrupt.

When Buck earned sixteen hundred dollars in five minutes for John Thornton, he made it possible for his master to pay off certain debts and to journey with his partners into the East after a fabled lost mine, the history of which was as old as the history of the country. Many men had sought it; few had found it; and more than a few there were who had never returned from the quest. This lost mine was steeped in tragedy and shrouded in mystery. No one knew of the first man. The oldest tradition stopped before it got back to him. From the beginning there had been

an ancient and ramshackle cabin. Dying men had sworn to it, and to the mine the site of which it marked, clinching their testimony with nuggets that were unlike any known grade of gold in the Northland.

But no living man had looted this treasure house, and the dead were dead; wherefore John Thornton and Pete and Hans, with Buck and half a dozen other dogs, faced into the East on an unknown trail to achieve where men and dogs as good as themselves had failed. They sledged seventy miles up the Yukon, swung to the left into the Stewart River, passed the Mayo and the Question, and held on until the Stewart itself became a streamlet, threading the upstanding peaks which marked the backbone of the continent. John Thornton asked little of man or nature. He was unafraid of the wild. With a handful of salt and a rifle he could plunge into the wilderness and fare wherever he pleased and as long as he pleased. Being in no haste, Indian fashion, he hunted his dinner in the course of the day's travel; and if he failed to find it, like the Indian, he kept on travelling, secure in the knowledge that sooner or later he would come to it. So, on this great journey into the East, straight meat was the bill of fare, ammunition and tools principally

made up the load on the sled, and the time-card was drawn upon the limitless future.

To Buck it was boundless delight, this hunting, fishing, and indefinite wandering through strange places. For weeks at a time they would hold on steadily, day after day; and for weeks upon end they would camp, here and there, the dogs loafing and the men burning holes through frozen muck and gravel and washing countless pans of dirt by the heat of the fire. Sometimes they went hungry, sometimes they feasted riotously, all according to the abundance of game and the fortune of hunting. Summer arrived, and dogs and men packed on their backs, rafted across blue mountain lakes, and descended or ascended unknown rivers in slender boats whipsawed from the standing forest.

The months came and went, and back and forth they twisted through the uncharted vastness, where no men were and yet where men had been if the Lost Cabin were true. They went across divides in summer blizzards, shivered under the midnight sun on naked mountains between the timber line and the eternal snows, dropped into summer valleys amid swarming gnats and flies, and in the shadows of glaciers picked strawberries and flowers as ripe and fair as any the

Southland could boast. In the fall of the year they penetrated a weird lake country, sad and silent, where wild-fowl had been, but where then there was no life nor sign of life-- only the blowing of chill winds, the forming of ice in sheltered places, and the melancholy rippling of waves on lonely beaches.

And through another winter they wandered on the obliterated trails of men who had gone before. Once, they came upon a path blazed through the forest, an ancient path, and the Lost Cabin seemed very near. But the path began nowhere and ended nowhere, and it remained mystery, as the man who made it and the reason he made it remained mystery. Another time they chanced upon the time-graven wreckage of a hunting lodge, and amid the shreds of rotted blankets John Thornton found a long-barreled flint-lock. He knew it for a Hudson Bay Company gun of the young days in the Northwest, when such a gun was worth its height in beaver skins packed flat, and that was all-- no hint as to the man who in an early day had reared the lodge and left the gun among the blankets.

Spring came on once more, and at the end of all their wandering they found, not the Lost Cabin, but a shallow placer in a broad valley where the gold showed like yellow butter across the bottom of the

washing-pan. They sought no farther. Each day they worked earned those thousands of dollars in

Clean dust and nuggets, and they worked every day. The gold was sacked in moose-hide bags, fifty pounds to the bag, and piled like so much firewood outside the spruce-bough lodge. Like giants they toiled, days flashing on the heels of days like dreams as they heaped the treasure up.

There was nothing for the dogs to do, save the hauling in of meat now and again that Thornton killed, and Buck spent long hours musing by the fire. The vision of the short-legged hairy man came to him more frequently, now that there was little work to be done; and often, blinking by the fire, Buck wandered with him in that other world which he remembered.

The salient thing of this other world seemed fear. When he watched the hairy man sleeping by the fire, head between his knees and hands clasped above, Buck saw that he slept restlessly, with many starts and awakenings, at which times he would peer fearfully into the darkness and fling more wood upon the fire. Did they walk by the beach of a sea, where the hairy man gathered shell- fish and ate them as he gathered, it was with eyes that roved everywhere for hidden danger and with legs prepared to run like the

wind at its first appearance. Through the forest they crept noiselessly, Buck at the hairy man's heels; and they were alert and vigilant, the pair of them, ears twitching and moving and nostrils quivering, for the man heard and smelled as keenly as Buck. The hairy man could spring up into the trees and travel ahead as fast as on the ground, swinging by the arms from limb to limb, sometimes a dozen feet apart, letting go and catching, never falling, never missing his grip. In fact, he seemed as much at home among the trees as on the ground; and Buck had memories of nights of vigil spent beneath trees wherein the hairy man roosted, holding on tightly as he slept.

And closely akin to the visions of the hairy man was the call still sounding in the depths of the forest. It filled him with a great unrest and strange desires. It caused him to feel a vague, sweet gladness, and he was aware of wild yearnings and stirrings for he knew not what. Sometimes he pursued the call into the forest, looking for it as though it were a tangible thing, barking softly or defiantly, as the mood might dictate. He would thrust his nose into the cool wood moss, or into the black soil where long grasses grew, and snort with joy at the fat earth smells; or he would crouch for hours, as if in concealment, behind fungus-

covered trunks of fallen trees, wide-eyed and wide-eared to all that moved and sounded about him. It might be, lying thus, that he hoped to surprise this call he could not understand. But he did not know why he did these various things. He was impelled to do them, and did not reason about them at all. Irresistible impulses seized him. He would be lying in camp, dozing lazily in the heat of the day, when suddenly his head would lift and his ears cock up, intent and listening, and he would spring to his feet and dash away, and on and on, for hours, through the forest aisles and across the open spaces where the niggerheads bunched. He loved to run down dry watercourses, and to creep and spy upon the bird life in the woods. For a day at a time he would lie in the underbrush where he could watch the partridges drumming and strutting up and down. But especially he loved to run in the dim twilight of the summer midnights, listening to the subdued and sleepy murmurs of the forest, reading signs and sounds as man may read a book, and seeking for the mysterious something that called--called, waking or sleeping, at all times, for him to come.

One night he sprang from sleep with a start, eager-eyed, nostrils quivering and scenting, his mane

bristling in recurrent waves. From the forest came the call (or one note of it, for the call was many noted), distinct and definite as never before,--a long-drawn howl, like, yet unlike, any noise made by husky dog. And he knew it, in the old familiar way, as a sound heard before. He sprang through the sleeping camp and in swift silence dashed through the woods. As he drew closer to the cry he went more slowly, with caution in every movement, till he came to an open place among the trees, and looking out saw, erect on haunches, with nose pointed to the sky, a long, lean, timber wolf.

He had made no noise, yet it ceased from its howling and tried to sense his presence. Buck stalked into the open, half crouching, body gathered compactly together, tail straight and stiff, feet falling with unwonted care. Every movement advertised commingled threatening and overture of friendliness. It was the menacing truce that marks the meeting of wild beasts that prey. But the wolf fled at sight of him. He followed, with wild leaping, in a frenzy to overtake. He ran him into a blind channel, in the bed of the creek where a timber jam barred the way. The wolf whirled about, pivoting on his hind legs after the fashion of Joe and of all cornered husky dogs, snarling

and bristling, clipping his teeth together in a continuous and rapid succession of snaps.

Buck did not attack, but circled him about and hedged him in with friendly advances. The wolf was suspicious and afraid; for Buck made three of him in weight, while his head barely reached Buck's shoulder. Watching his chance, he darted away, and the chase was resumed. Time and again he was cornered, and the thing repeated, though he was in poor condition, or Buck could not so easily have overtaken him. He would run till Buck's head was even with his flank, when he would whirl around at bay, only to dash away again at the first opportunity.

But in the end Buck's pertinacity was rewarded; for the wolf, finding that no harm was intended, finally sniffed noses with him. Then they became friendly, and played about in the nervous, half-coy way with which fierce beasts belie their fierceness. After some time of this the wolf started off at an easy lope in a manner that plainly showed he was going somewhere. He made it clear to Buck that he was to come, and they ran side by side through the somber twilight, straight up the creek bed, into the gorge from which it issued, and across the bleak divide where it took its rise.

On the opposite slope of the watershed they came down into a level country where great stretches of forest and many streams were, and through these great stretches they ran steadily, hour after hour, the sun rising higher and the day growing warmer. Buck was wildly glad. He knew he was at last answering the call, running by the side of his wood brother toward the place from where the call surely came. Old memories were coming upon him fast, and he was stirring to them as of old he stirred to the realities of which they were the shadows. He had done this thing before, somewhere in that other and dimly remembered world, and he was doing it again, now, running free in the open, the unpacked earth underfoot, the wide sky overhead.

They stopped by a running stream to drink, and, stopping, Buck remembered John Thornton. He sat down. The wolf started on toward the place from where the call surely came, then returned to him, sniffing noses and making actions as though to encourage him. But Buck turned about and started slowly on the back track. For the better part of an hour the wild brother ran by his side, whining softly. Then he sat down, pointed his nose upward, and howled. It was a mournful howl, and as Buck held

steadily on his way he heard it grow faint and fainter until it was lost in the distance.

John Thornton was eating dinner when Buck dashed into camp and sprang upon him in a frenzy of affection, overturning him, scrambling upon him, licking his face, biting his hand--"playing the general tom-fool," as John Thornton characterized it, the while he shook Buck back and forth and cursed him lovingly.

For two days and nights Buck never left camp, never let Thornton out of his sight. He followed him about at his work, watched him while he ate, saw him into his blankets at night and out of them in the morning. But after two days the call in the forest began to sound more imperiously than ever. Buck's restlessness came back on him, and he was haunted by recollections of the wild brother, and of the smiling land beyond the divide and the run side by side through the wide forest stretches. Once again he took to wandering in the woods, but the wild brother came no more; and though he listened through long vigils, the mournful howl was never raised.

He began to sleep out at night, staying away from camp for days at a time; and once he crossed the

divide at the head of the creek and went down into the land of timber and streams. There he wandered for a week, seeking vainly for fresh sign of the wild brother, killing his meat as he travelled and travelling with the long, easy lope that seems never to tire. He fished for salmon in a broad stream that emptied somewhere into the sea, and by this stream he killed a large black bear, blinded by the mosquitoes while likewise fishing, and raging through the forest helpless and terrible. Even so, it was a hard fight, and it aroused the last latent remnants of Buck's ferocity. And two days later, when he returned to his kill and found a dozen wolverines quarrelling over the spoil, he scattered them like chaff, and those that fled left two behind who would quarrel no more.

The blood-longing became stronger than ever before. He was a killer, a thing that preyed, living on the things that lived, unaided, alone, by virtue of his own strength and prowess, surviving triumphantly in a hostile environment where only the strong survived. Because of all this he became possessed of a great pride in himself, which communicated itself like a contagion to his physical being. It advertised itself in all his movements, was apparent in the play of every muscle, spoke plainly as speech in the way he carried

himself, and made his glorious furry coat if anything more glorious. But for the stray brown on his muzzle and above his eyes, and for the splash of white hair that ran midmost down his chest, he might well have been mistaken for a gigantic wolf, larger than the largest of the breed. From his St. Bernard father he had inherited size and weight, but it was his shepherd mother who had given shape to that size and weight. His muzzle was the lone wolf muzzle, save that was larger than the muzzle of any wolf; and his head, somewhat broader, was the wolf head on a massive scale.

His cunning was wolf cunning, and wild cunning; his intelligence, shepherd intelligence and St. Bernard intelligence; and all this, plus an experience gained in the fiercest of schools, made him as formidable a creature as any that intelligence roamed the wild. A carnivorous animal living on a straight meat diet, he was in full flower, at the high tide of his life, over spilling with vigor and virility. When Thornton passed a caressing hand along his back, a snapping and crackling followed the hand, each hair discharging its pent magnetism at the contact. Every part, brain and body, nerve tissue and fiber, was keyed to the most exquisite pitch; and between all the parts there was a

perfect equilibrium or adjustment. To sights and sounds and events which required action, he responded with lightning-like rapidity. Quickly as a husky dog could leap to defend from attack or to attack, he could leap twice as quickly. He saw the movement, or heard sound, and responded in less time than another dog required to compass the mere seeing or hearing. He perceived and determined and responded in the same instant. In point of fact the three actions of perceiving, determining, and responding were sequential; but so infinitesimal were the intervals of time between them that they appeared simultaneous. His muscles were surcharged with vitality, and snapped into play sharply, like steel springs. Life streamed through him in splendid flood, glad and rampant, until it seemed that it would burst him asunder in sheer ecstasy and pour forth generously over the world.

"Never was there such a dog," said John Thornton one day, as the partners watched Buck marching out of camp.

"When he was made, the mound was broke," said Pete. "Pie jingo! I think so mine self," Hans affirmed.

They saw him marching out of camp, but they did

not see the instant and terrible transformation which took place as soon as he was within the secrecy of the forest. He no longer marched. At once he became a thing of the wild, stealing along softly, cat-footed, and a passing shadow that appeared and disappeared among the shadows. He knew how to take advantage of every cover, to crawl on his belly like a snake, and like a snake to leap and strike. He could take a ptarmigan from its nest, kill a rabbit as it slept, and snap in midair the little chipmunks fleeing a second too late for the trees. Fish, in open pools, were not too quick for him; nor were beaver, mending their dams, too wary. He killed to eat, not from wantonness; but he preferred to eat what he killed himself. So a lurking humor ran through his deeds, and it was his delight to steal upon the squirrels, and, when he all but had them, to let them go, chattering in mortal fear to the treetops.

As the fall of the year came on, the moose appeared in greater abundance, moving slowly down to meet the winter in the lower and less rigorous valleys. Buck had already dragged down a stray part-grown calf; but he wished strongly for larger and more formidable quarry, and he came upon it one day on the divide at the head of the creek. A band of

twenty moose had crossed over from the land of streams and timber, and chief among them was a great bull. He was in a savage temper, and, standing over six feet from the ground, was as formidable an antagonist as even Buck could desire. Back and forth the bull tossed his great palmate antlers, branching to fourteen points and embracing seven feet within the tips. His small eyes burned with a vicious and bitter light, while he roared with fury at sight of Buck.

From the bull's side, just forward of the flank, protruded a feathered arrow-end, which accounted for his savageness. Guided by that instinct which came from the old hunting days of the primordial world, Buck proceeded to cut the bull out from the herd. It was no slight task. He would bark and dance about in front of the bull, just out of reach of the great antlers and of the terrible splay hoofs which could have stamped his life out with a single blow. Unable to turn his back on the fanged danger and go on, the bull would be driven into paroxysms of rage. At such moments he charged Buck, who retreated craftily, luring him on by a simulated inability to escape. But when he was thus separated from his fellows, two or three of the younger bulls would charge back upon Buck and enable the wounded bull

to rejoin the herd.

There is a patience of the wild--dogged, tireless, persistent as life itself--that holds motionless for endless hours the spider in its web, the snake in its coils, the panther in its ambushade; this patience belongs peculiarly to life when it hunts its living food; and it belonged to Buck as he clung to the flank of the herd, retarding its march, irritating the young bulls, worrying the cows with their half-grown calves, and driving the wounded bull mad with helpless rage. For half a day this continued. Buck multiplied himself, attacking from all sides, enveloping the herd in a whirlwind of menace, cutting out his victim as fast as it could rejoin its mates, wearing out the patience of creatures preyed upon, which is a lesser patience than that of creatures preying.

As the day wore along and the sun dropped to its bed in the northwest (the darkness had come back and the fall nights were six hours long), the young bulls retraced their steps more and more reluctantly to the aid of their beset leader. The down-coming winter was harrying them on to the lower levels, and it seemed they could never shake off this tireless creature that held them back. Besides, it was not the life of the herd, or of the young bulls that was

threatened. The life of only one member was demanded, which was a remoter interest than their lives, and in the end they were content to pay the toll. As twilight fell the old bull stood with lowered head, watching his mates--the cows he had known, the calves he had fathered, the bulls he had mastered--

As they shambled on at a rapid pace through the fading light. He could not follow, for before his nose leaped the merciless fanged terror that would not let him go. Three hundredweight more than half a ton he weighed; he had lived a long, strong life, full of fight and struggle, and at the end he faced death at the teeth of a creature whose head did not reach beyond his great knuckled knees.

From then on, night and day, Buck never left his prey, never gave it a moment's rest, never permitted it to browse the leaves of trees or the shoots of young birch and willow. Nor did he give the wounded bull opportunity to slake his burning thirst in the slender trickling streams they crossed. Often, in desperation, he burst into long stretches of flight. At such times Buck did not attempt to stay him, but loped easily at his heels, satisfied with the way the game was played, lying down when the moose stood still, attacking him fiercely when he strove to eat or drink.

The great head drooped more and more under its tree of horns, and the shambling trot grew weak and weaker. He took to standing for long periods, with nose to the ground and dejected ears dropped limply; and Buck found more time in which to get water for himself and in which to rest. At such moments, panting with red lolling tongue and with eyes fixed upon the big bull, it appeared to Buck that a change was coming over the face of things. He could feel a new stir in the land. As the moose were coming into the land, other kinds of life were coming in. Forest and stream and air seemed palpitate with their presence. The news of it was borne in upon him, not by sight, or sound, or smell, but by some other and subtler sense. He heard nothing, saw nothing, yet knew that the land was somehow different; that through it strange things were afoot and ranging; and he resolved to investigate after he had finished the business in hand.

At last, at the end of the fourth day, he pulled the great moose down. For a day and a night he remained by the kill, eating and sleeping, turn and turnabout. Then, rested, refreshed and strong, he turned his face toward camp and John Thornton. He broke into the

long easy lope, and went on, hour after hour, never at loss for the tangled way, heading straight home through strange country with a certitude of direction that put man and his magnetic needle to shame.

As he held on he became more and more conscious of the new stir in the land. There was life abroad in it different from the life which had been there throughout the summer. No longer was this fact borne in upon him in some subtle, mysterious way. The birds talked of it, the squirrels chattered about it, The very breeze whispered of it. Several times he stopped and drew in the fresh morning air in great sniffs, reading a message which made him leap on with greater speed. He was oppressed with a sense of calamity happening, if it were not calamity already happened; and as he crossed the last watershed and dropped down into the valley toward camp, he proceeded with greater caution.

Three miles away he came upon a fresh trail that sent his neck hair rippling and bristling, it led straight toward camp and John Thornton. Buck hurried on, swiftly and stealthily, every nerve straining and tense, alert to the multitudinous details which told a story-- all but the end. His nose gave him a varying description of the passage of the life on the heels of

which he was travelling. He remarked die pregnant silence of the forest. The bird life had flitted. The squirrels were in hiding. One only he saw,--a sleek gray fellow, flattened against a gray dead limb so that he seemed a part of it, a woody excrescence upon the wood itself.

As Buck slid along with the obscureness of a gliding shadow, his nose was jerked suddenly to the side as though a positive force had gripped and pulled it. He followed the new scent into a thicket and found Nig. He was lying on his side, dead where he had dragged himself, an arrow protruding, head and feathers, from either side of his body.

A hundred yards farther on, Buck came upon one of the sled-dogs Thornton had bought in Dawson. This dog was thrashing about in a death- struggle, directly on the trail, and Buck passed around him without stopping. From the camp came the faint sound of many voices, rising and falling in a sing-song chant. Bellying forward to the edge of the clearing, he found Hans, lying on his face, feathered with arrows like a porcupine. At the same instant Buck peered out where the spruce-bough lodge had been and saw what made his hair leap straight up on his neck and shoulders. A gust of overpowering rage swept over

him. He did not know that he growled, but he growled aloud with a terrible ferocity. For the last time in his life he allowed passion to usurp cunning and reason, and it was because of his great love for John Thornton that he lost his head.

The Yeats were dancing about the wreckage of the spruce-bough lodge when they heard a fearful roaring and saw rushing upon them an animal the like of which they had never seen before. It was Buck, a live hurricane of fury, hurling himself upon them in a frenzy to destroy. He sprang at the foremost man (it was the chief of the Yeats), ripping the throat wide open till the rent jugular spouted a fountain of blood. He did not pause to worry the victim, but ripped in passing, with the next bound tearing wide the throat of a second man. There was no withstanding him. He plunged about in their very midst, tearing, rending, destroying, in constant and terrific motion which defied the arrows they discharged at him. In fact, so inconceivably rapid were his movements, and so closely were the Indians tangled together, that they shot one another with the arrows; and one young hunter, hurling a spear at Buck in midair, drove it through the chest of another hunter with such force that the point broke through

the skin of the back and stood out beyond. Then a panic seized the Yeats, and they fled in terror to the woods, proclaiming as they fled the advent of the Evil Spirit.

And truly Buck was the Fiend incarnate, raging at their heels and dragging them down like deer as they raced through the trees. It was a fateful day for the Yeats. They scattered far and wide over the country, and it was not till a week later that the last of the survivors gathered together in a lower valley and counted their losses. As for Buck, wearying of the pursuit, he returned to the desolated camp. He found Pete where he had been killed in his blankets in the first moment of surprise. Thornton's desperate struggle was fresh-written on the earth, and Buck scented every detail of it down to the edge of a deep pool. By the edge, head and fore feet in the water, lay Skeet, faithful to the last. The pool itself, muddy and discolored from the sluice boxes, effectually hid what it contained, and it contained John Thornton; for Buck followed his trace into the water, from which no trace led away.

All day Buck brooded by the pool or roamed restlessly about the camp. Death, as a cessation of movement, as a passing out and away from the lives of the living,

he knew, and he knew John Thornton was dead. It left a great void in him, somewhat akin to hunger, but a void which ached and ached, and which food could not fill. At times, when he paused to contemplate the carcasses of the Yeats, he forgot the pain of it; and at such times he was aware of a great pride in himself,--a pride greater than any he had yet experienced. He had killed man, the noblest game of all, and he had killed in the face of the law of club and fang. He sniffed the bodies curiously. They had died so easily. It was harder to kill a husky dog than them. They were no match at all, were it not for their arrows and spears and clubs. Thenceforward he would be unafraid of them except when they bore in their hands their arrows, spears, and clubs.

Night came on, and a full moon rose high over the trees into the sky, lighting the land till it lay bathed in ghostly day. And with the coming of the night, brooding and mourning by the pool, Buck became alive to a stirring of the

New life in the forest other than that which the Yeats had made, He stood up, listening and scenting. From far away drifted a faint, sharp yelp, followed by a chorus of similar sharp yelps. As the moments passed the yelps grew closer and louder. Again Buck knew

them as things heard in that other world which persisted in his memory. He walked to the center of the open space and listened. It was the call, the many-noted call, sounding more alluringly and compellingly than ever before. And as never before, he was ready to obey. John Thornton was dead. The last tie was broken. Man and the claims of man no longer bound him.

Hunting their living meat, as the Yeats were hunting it, on the flanks of the migrating moose, the wolf pack had at last crossed over from the land of streams and timber and invaded Buck's valley. Into the clearing where the moonlight streamed, they poured in a silvery flood; and in the center of the clearing stood Buck, motionless as a statue, waiting their coming. They were awed, so still and large he stood, and a moment's pause fell, till the boldest one leaped straight for him. Like a flash Buck struck, breaking the neck. Then he stood, without movement, as before, the stricken wolf rolling in agony behind him. Three others tried it in sharp succession; and one after the other they drew back, streaming blood from slashed throats or shoulders.

This was sufficient to fling the whole pack forward, pell-mell, crowded together, blocked and confused by

its eagerness to pull down the prey. Buck's marvelous quickness and agility stood him in good stead. Pivoting on his hind legs, and snapping and gashing, he was everywhere at once, presenting a front which was apparently unbroken so swiftly did he whirl and guard from side to side. But to prevent them from getting behind him, he was forced back, down past the pool and into the creek bed, till he brought up against a high gravel bank. He worked along to a right angle in the bank which the men had made in the course of mining, and in this angle he came to bay, protected on three sides and with nothing to do but face the front.

And so well did he face it, that at the end of half an hour the wolves drew back discomfited. The tongues of all were out and lolling, the white fangs showing cruelly white in the moonlight. Some were lying down with heads raised and ears pricked forward; others stood on their feet, watching him; and still others were lapping water from the pool. One wolf, long and lean and gray, advanced cautiously, in a friendly manner, and Buck recognized the wild brother with whom he had run for a night and a day. He was whining softly, and, as Buck whined, they touched noses.

Then an old wolf, gaunt and battle-scarred, came forward. Buck writhed his lips into the preliminary of a snarl, but sniffed noses with him, whereupon the old wolf sat down, pointed nose at the moon, and broke out the long wolf howl. The others sat down and howled. And now the call came to Buck in unmistakable accents. He, too, sat down and howled. This over, he came out of his angle and the pack crowded around him, sniffing in half-friendly, half-savage manner. The leaders lifted the yelp of the pack and sprang away into the woods. The wolves swung in behind, yelping in chorus. And Buck ran with them, side by side with the wild brother, yelping as he ran.

And here may well end the story of Buck. The years were not many when the Yeats noted a change in the breed of timber wolves; for some were seen with splashes of brown on head and muzzle, and with a rift of white centering down the chest. But more remarkable than this, the Yeats tell of a Ghost Dog that runs at the head of the pack. They are afraid of this Ghost Dog, for it has cunning greater than they, stealing from their camps in fierce winters, robbing their traps, slaying their dogs, and defying their bravest hunters.

Nay, the tale grows worse. Hunters there are who fail

to return to the camp, and hunters there have been whom their tribesmen found with throats slashed cruelly open and with wolf prints about them in the snow greater than the prints of any wolf. Each fall, when the Yeats follow the movement of the moose, there is a certain valley which they never enter. And women there are who become sad when the word goes over the fire of how the Evil Spirit came to select that valley for an abiding-place.

In the summers there is one visitor, however, to that valley, of which the Yeats do not know. It is a great, gloriously coated wolf, like, and yet unlike, all other wolves. He crosses alone from the smiling timber land and comes down into an open space among the trees. Here a yellow stream flows from rotted moose-hide sacks and sinks into the ground, with long grasses growing through it and vegetable mound overrunning it and hiding its yellow from the sun; and here he muses for a time, howling once, long and mournfully, ere he departs.

But he is not always alone. When the long winter nights come on and the wolves follow their meat into the lower valleys, he may be seen running at the head of the pack through the pale moonlight or glimmering borealis, leaping gigantic above his fellows, his great

throat a-bellow as he sings a song of the younger world, which is the song of the pack.

The Jhajjar Power Plant is a 1,320 MW (2 x 660 MW) domestic coal based power project located at Village Kanpur, Dist. Jhajjar, Haryana. Both the units of the plant have been successfully synchronized and the whole plant has achieved Commercial Operation Date (COD) on 19th July 2012. The two units will provide about 270 lakh additional units of electricity daily to the state when operating at rated capacity. It is the first coal-based power generation project set up by an independent power producer in the state and one of India's first plants that uses supercritical technology. The use of the supercritical technology in the plant helps increase the energy efficiency therefore reducing carbon emissions.

The plant in addition to using supercritical technology has made a voluntary decision of installing flue gas desulphurization (FGD) despite a significant additional financial implication, even though the Indian regulations did not require this. This has helped to further minimize the environmental impact of the operations. The Jhajjar Power Plant was also awarded the CNBC TV 18's Infrastructure Excellence

Award for the year 2012 in the main category of Energy & Power. Various community engagement activities have been initiated around the plant. These are primarily focused on core areas such as education, health, women empowerment, livelihood restoration and environment awareness. Charli, a 35-km, partially bone-rattling ride from the heart of dusty Jhajjar town looks like just another sleepy outpost in Haryana's eastern periphery. With a significant difference – it is the site of two mega power projects, pitched right opposite each other on a narrow state road, that are in various stages of commissioning. Both are big, based on domestic coal, but facing an equally massive coal shortage. The 1,500 MW Indira Gandhi Super Thermal Power Project is being executed by joint venture firm Aravalli Power, floated by NTPC Ltd, Haryana and Delhi. It was to get coal linkage of 6.94 million tons per annum (tap) allocated from Mahanadi Coalfields Ltd, a Coal India Ltd subsidiary. “We are getting about half that amount,” said an NTPC official. “Of that, half of what comes in is just sand, stones and boulders. The irony is that the consignment, much of it just waste, is transported over 1,500 km, for which the consumer will be billed.” Bang opposite, the 1,320 MW Mahatma Gandhi Thermal Power Project, which was bagged through

competitive bidding by CLP Power India in July 2008, was promised coal linkage of 5.21 tap from CCL, another Coal India arm, Power

From this project was to be made available from January 2012. Till a couple of weeks back, the developers were still in the process of aggregating coal for testing, to maintain at least seven day's continuous operations.

M/s Herron Networks Ltd. Is an existing assisted sector company of Haryana State Electronic Development? Ltd. (HARTRON) incorporated on 12.12.1988 under the Companies Act with Registrar of Companies Delhi and Haryana. The Company was originally promoted by Sh. K.K. Dhār and Associates in the assisted sector with HARTRON to develop and manufacture High Tech Telecommunication equipment's based on State of the Art Technology. At present the company is engaged in development and manufacture of the High Tech telecommunication equipment's based on the state of the Art technology. The company was originally promoted by Sh. K.K. Dhār in assisted sector with Herron. Subsequently, Sh. M.L. Jain and associated took over the management of the company with the purchase of entire share capital from Sh. K.K. Dhār, and associates. TECHNICAL

COLLABORATION: The Company has technical collaboration with Reliance commercial and Technology, USA and C-DOT. **MAIN TERMS AND CONDITIONS OF TECHNICAL COLLABORATION:** ITEM 10 channel digital UHF system Date of entering of agreement 2.05.91 Tenure 6 year from the date of entering into contract or 5 years from the date of commencement of commercial production whichever is earlier.

The National Flag of India is also known as the Taranga Johana. It was first officially adopted during the meeting of Constituent Assembly on July 22nd in 1947. It was adopted 24 days before the independence of India from British rule. It was designed by the Pintail Venkayya. It was so designed in horizontal shape having three colors of saffron, white and green in equivalent proportions. The upper saffron color, white middle, lower dark green colors. Our national flag contains 2:3 ratio of width and length. In the center a navy blue wheel having 24 spokes is designed in the middle white strip. Asoka Chakra was taken from the pillar of the Ashok, Harnath (Lion Capital of Asoka). Our national flag is of great significance to all of us. All the colors, strips,

wheel and clothe used in the flag have their special significance. Flag code of India decides the use and display of national flag. Till 52 years after the independence of India, national flag was not allowed to display by the people however later the rule was altered (according to the flag code 26th January 2002) to use flag at homes, offices and factories on any special occasion. National Flag is hoisted on the national occasions like Republic day, Independence Day, etc. It is also displayed in the schools and educational institutions (colleges, universities, sports camps, scout camps, etc.) to inspire the students for honoring and respecting the Indian Flag. Students take an oath and sing national anthem while unfurling the national flag in the schools and colleges. Public and private organization members may also hoist the flag on any occasions, ceremonial event, etc. It is restricted to display the national flag for any communal or personal gains. Nobody is allowed to display the flag made of other clothes otherwise it is a punishment of imprisonment and fine. National Flag can be flown from morning till evening (sunrise to sunset) in any weather. It is prohibited to intentionally dishonor the national flag or touch it to the ground, floor or trail in water. It should not be

used to cover the top, bottom, 34 sides or back of any vehicle, like car, boat, trains, or aircraft. On flag other than the Indian should be displayed at higher level.

Mahatma Gandhi was born in the Porbandar city of Gujarat in October 2nd, 1869. His father name is Karamchand Gandhi, the divan of Porbandar, and his wife, Putlibai. Since his mother was a Hindu of the Purname Vaishnava order, Gandhi learned the tenets of non-injury to living beings, vegetarianism, fasting, mutual tolerance, etc., at a very tender age. Mohandas was married at the age of 13 to Kasturba Lakhani and had four sons. He passed the matriculation exam at Masalas College of Bhavnagar. In the year 1888, Gandhi went to University College of London to study as a barrister. Gandhi was the greatest man not only of India but to the world. He was the Father of the Nation and we called him "Badu"... His full name is Mohandas Karamchand Gandhi. At the age of seven he was sent to school. At school he proved himself only an average boy. He was always regular and punctual in his class. After passing his matriculation Examination he first studied at college and then went to England to study Law. In London he made acquaintance with Mrs. Besant and

read to work of Tolstoy. Tolstoy's teachings had deep influence on his mind. In 1891 he was called to bar. After completing his studies he returned to India. He started his practice at Bombay. But he did not do well there. Then he went to Rajkot. He was not a successful lawyer because he did not like to plead false cases, but one day he was called by a big Indian Merchant in South Africa to conduct a law suit in a court. He went to Africa. Gandhi remained in South Africa for twenty years, suffering imprisonment many times. In 1896, after being attacked and humiliated by white South Africans, Gandhi began to teach a policy of passive resistance to, and non-cooperation with, the South African authorities. Part of the inspiration for this policy came from the Russian writer Leo Tolstoy, whose influence on Gandhi was profound. Gandhi also acknowledged his debt to the teachings of Christ and to the 19th-century American writer Henry David Thoreau, especially to Thoreau's famous essay "Civil Disobedience." Gandhi considered the terms passive resistance and civil disobedience inadequate for his purposes, however, and coined another term, Satyagraha (from Sanskrit, "truth and firmness"). During his stay there he saw the people conditions of

Indians living in South Africa. He made up his mind to put up a brave fight for their rights. He founded the National Indian Congress. Gandhi and his friends were jailed but they carried on fight. In 1914 the Indian Relief Act was passed. Internet is a network of computer systems that have been connected to each other using standard communication protocols. Internet gives access to a large volume of precious and useful information. Internet operations began when the US Department of Defense connected some computers through optical cable networks. These networks also used satellites for transmission of data to far-off places. The Internet service is provided by both Government and private organizations. Internet has given the most exciting mode of communications to all the e-mail. We can send as e-mail to all the corners of the world. The data cost of internet for sending an E-mail is very low. Further, Internet can be used to collect information from various websites of different subjects. This information could relate to education, medicines, literature, software, computers, business, entertainment, friendship and leisure. Internet is also used for carrying out business operations and that set of operations is known as Electronic Commerce (e-commerce). All the

newspapers, magazines and journals of the world are available on Internet. The possibilities and Internet are endless. The advantages of Internet are low cost, large volumes of

Information, high speed of access and good quality of entertainment. Its disadvantage is that people often waste time while surfing through various websites on Internet. The new century has ushered into a new era of Information Technology and Internet is the backbone of the Internet is amongst the greatest invention of mankind. Internet is useful for people of all ages. HCL Technologies is one of the seven companies in the Bloomberg database of 3,000 technology companies with a market capitalization of more than \$5 billion, revenue of more

Than \$2.5 billion and a compounded annual growth rate more than 25 per cent during the past five years (HCL Technologies Limited, 2012). Definition of Success at HCL means providing the best possible solutions to their clients with optimum level of satisfaction. HCL Technologies is the Number 1 employer in India. Hindustan Computers Limited (HCL), one of India's original IT firms started in 1976 currently deals in various segments like Remote Infrastructure Management, BPO services, IT

Hardware, Systems Integration and Distribution of Technology and Telecom products R&D and Technology Services and Enterprise and Applications Consulting is India's original IT firm. Started 35 years ago, the enterprise now stands with an enormous workforce of 90,000 employees. It spreads across 31 countries across the globe and has 505 foothills in India. A global name and numerous partnerships with many Fortune 1000 firms are a few feathers in the HCL's success story (HCL, 2012).

HCL's leadership style follows the rule of free-rein rather than the contemporary participative method. It is clearly noticeable from the recent development of a defined approach of Employees First & Customers Seconds (EFCS). Now days the leaders give full authority to their employees to make decisions but at the same time, take the responsibility of the same. It helps the company to build future leaders who would be better decision makers and also motivation to the employees for analyzing situations better and working with respect to them. Delegating tasks is an important tool which should be followed and practiced in corporate and fortunately is followed in the HCL. It helps build confidence and trust among co-workers aiding a pleasant and healthy work

environment. This is kind of leadership style is also known as laissez faire, which is the non-interference in the affairs of others (Clark, 2010). Expertise of employees is the key to HCL's success.

HCL firmly believes that a firm's employee's makes the company reach pinnacle heights. Highly qualified and well trained employees are a part of the HCL clan. When knowledge comes into picture, expert power is the power used by employees. It's the knowledge that makes a person stand out in the crowd of all employees. Expert Power is a very common phenomenon in knowledge based industries (Tannenbaum and Schmidt, 1973). A place where people can think and imagine endless possibilities is the best way to describe HCL. Freedom of thought is very important to extract the additional creativity at work. With a bright history of 35 years, HCL has stood by its core values and philosophy of creating innovations and inventions.

HCL has a very rigid demarcation of working in their own department, which implies that employees are not allowed to work in other department other than their own which gradually spoils the inter-departmental relationships. In case of absenteeism too, workers are not allowed to switch department to

avoid gaps in enhancing productivity. Rigid policies, tapered span of control and high degree of centralization and formalization are few things associated with HCL.

Within departments HCL employees have freedom of processing their thoughts but not inter-departmentally. The organization was bureaucratic structure. However, HCL has initiated a new management approach where the employees of HCL are considered first and then the customers. It is termed as Employees-First Effect which according to Mr. Viet, CEO is the reason for the company being employee centric and employee driven. It is very much like trimming the conventional method upside down. This not only helps in building confidence and motivation among employees but also transparent work environment. Robert Hooke is known as a "Renaissance Man" of 17th century England for his work in the sciences, which covered areas such as astronomy, physics and biology. Born in Freshwater on England's Isle of Wight in 1635, scientist Robert Hooke was educated at Oxford and spent his career at the Royal Society and Gresham College. His research and experiments ranged from astronomy to biology to physics; he is particularly recognized for the

observations he made while using a microscope and for "Hooke's Law" of elasticity. Hooke died in London in 1703.

Robert Hooke was born in the town of Freshwater, on England's Isle of Wight, on July 18, 1635. His parents were John Hooke, who served as curate for the local church parish, and Cecily (née Giles) Hooke. Initially a sickly

Child, Hooke grew to be a quick learner who was interested in painting and adept at

Making mechanical toys and models. After his father's death in 1648, the 13-year-old Hooke was sent to London to apprentice with painter Peter Lely. This connection turned out to be a short one, and he went instead to study at London's Westminster School. In 1653, Hooke enrolled at Oxford's Christ Church College, where he supplemented his meager funds by working as an assistant to the scientist Robert Boyle. While studying subjects ranging from astronomy to chemistry, Hooke also made influential friends, such as future architect Christopher Wren.

Robert Hooke was and English scientist born in 1635 and died in the year of 1703. Robert Hooke was born in the town of Freshwater, which is located in the Isle

of Write. Hooke was born to a minister named John Hooke. Robert received a great deal of education that did not take place in the classroom. He studied with the portraitist Sir Peter Lely (in his youth). He was educated at the University of Oxford. Then after college he was an assistant of Robert Boyle. He made curator of experiments to the royal society in 1662, and secretary in 1677-88. Hooke is best known for his theory of elasticity, in Hooke's law. In 1665 Hooke became professor of Geometry at Gresham College, which he occupied till his death. Despite being a famous scientist, there are no surviving portraits of Hooke.

Hooke's law of elasticity states that the amount an elastic body bends or stretches out of shape (strain) is in direct proportion to the force (stress) acting on it. This law applies as long as the body is still elastic. Increased stress beyond this limit will change the shape of the body permanently. Robert Hooke had many accomplishments as a scientist the law of elasticity is what he is most well known for.

Robert Hooke also was the first person to observe the cells of a plant. Using an early microscope he observed the cells. Hooke took a cork layer of bark from an oak tree and examined it with a microscope that he made. When observing the cells he noticed

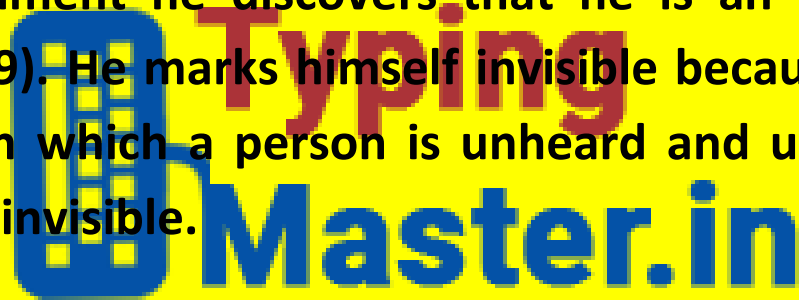
the compartments looked like the small cells of a monastery, so he decided to call them cells. This is a photo, one of Hooke's early observations. Hooke's reputation as a biologist is largely due to the book he wrote called *Micrographia*, which was published in 1665.

In the book *Micrographia* he started to use the word "cell" and described the features of plant tissues that he was able to observe with his microscope

"*Battle Royal*" is a story about a black boy that is psychologically awakened when he overhears what his grandfather says at his deathbed to his father. This boy, before he realizes who he really is, and his social standing in the society that he lives, is searching to find himself. However this search is filled with many obstacles, because he lives in a time when people of his status are conditioned to act, talk, and behave in a certain way.

Our hero's journey toward the light (truth) is started a long time ago. However in the beginning he is unable to get on the right course, due to the wrong advice he is given by different people; he says it as "All my life I was looking for something, and every were that I turned someone tried to tell me what it was. I accepted their answers too, though they were

often in contradiction" (448). Because each time that he accepts their advice he is little by little pushed off the right track. It is not until he realizes that he is searching for himself, and instead of asking others questions, he needs to ask the questions to himself. Once he discovers whom to turn to, he begins a long and difficult journey in which he realizes that he is a unique person, he puts it as, and "I am nobody but myself."(449). this means that he is unique and he is who he is, black. However before he comes to this enlightenment he discovers that he is an "invisible man"(449). He marks himself invisible because in the society in which a person is unheard and unseen by others is invisible.



At that point our young friend's problem is clear. He is a black boy in a White men's world, in which he is not see or heard. Yet he still does not know what to do about it, well at-least not until he hears his grandfather's words to his father:

Son, after I'm gone I want you to keep up a good fight. I never told you, but your life is a war and I have been a traitor all my born days, a spy in the enemy's country ever since I give up.

Water is a natural resource that every human being on Earth can use to satisfy his or her needs. According to the well known facts, a perfectly healthy man or woman can live from 3 to 5 days without water. But there are some requirements that should be fulfilled. First of all, the person must be absolutely healthy. Second of all, he or she must be located in perfect Conditions. This means that the temperature shouldn't be high or low. But this is just a theory – there's no need to practice it!

What are the functions of water? First of all, water can easily quench the thirst. Besides, it can make us survive, clean our organism and simply recharge our fatigue. To say more, water is known for its revitalizing functions that make our skin look better. According to the recent investigations performed by the scientists, 70% of the human being's body mass is composed of water. Thus, we can openly state how important this liquid is for us.

Although water is an integral part of our life and health in particular, we lose it every single day. In what way do we do that? We can lose water through bowel movement, perspiration and respiration. For instance, if you're a fan of regular exercising, you know that the process will start perspiration which is respiration and

sweating.

Water is not only important to people and animals, but to plants as well. So, if we look deeper, it's easy to see that if there was no water to feed the plants, there would be no oxygen for us. Water also provides us with a great number of multiple benefits. The number one advantage that water brings into our life is its revitalizing function. Our skin dries under the sun and water is always there to revitalize it.

Taking in account the fact that we all live in huge cities where regular stress is something that we all have got used to, it's no wonder that constant nervous tension makes us age. This is when water also can help through its revitalizing features. Besides that, this precious liquid can rehydrate our body, in our everyday life we like to play games, we work a lot and perspire that usually is the reason behind the body's dehydration. This, in turn, can cause many problems with health and even might lead to death – in most extreme conditions.

In the process of studying, work and playing, we all get tired. This means that our organism is in need of water to recharge fatigue in order to go on with our everyday activities. It is important to mention that

fatigue can be of both – physical and mental nature. Mental fatigues causes extensive sleepiness and decrease of attention of an individual whereas physical fatigue will make the muscles tired and pain. As the result of all these aspects, a human being becomes absolutely sluggish. And finally, water is a precious source for help when the person is in need of detoxification, which is the process of cleansing the bacteria in the body of a human being. On this planet, there is no better helper in the process of detoxification than water! This is definitely the best agent, and, without any doubts, the cheapest.

To make it clear, water is the most important part of our life. We can spend days without food and still be alive. But if we got deprived of water, very soon we would close our eyes forever. Water provides our life with a great variety of advantages. That is why we have to take care of our health and water is the number one tool to make use of in the process!

Road trips are fun. I always look forward to road trip with family. We are all so busy with our daily chores that we hardly spend any time with each other. It is during such trips that we get to spend quality time with one another. I had been on quite a few road trips

with family. The best among these was our trip to the beautiful Indian town, Dalhousie.

During my last summer vacations, we all suggested different places for road trip and finally decided to go to Dalhousie. Dalhousie is around ten hours away from our place so we decided to go for a night journey. We booked a six-seater cab to accommodate our family of five – Me, my mother, father, brother and sister.

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We played antakshari and dumb charades and chatted with each other until late night. Next morning, we woke up as the driver stopped the car and announced we have reached our destination. The place was beautiful and the weather was amazing. Our rooms were cozy and comfortable and the view outside was mesmerizing. I could see the beautiful mountains and greenery all around. We had our breakfast, got ready and went for site-seeing. Punch Pula was the first tourist attraction we visited. It was

a beautiful waterfall that offered a scenic view. We roamed around the place for some time and sat there enjoying the beauty of the nature.

Next, we went to Daikon Peak. The view from the peak was just amazing. We then headed back to our hotel. We had dinner on the way and dosed off to sleep almost as soon as we reached our room as it had been an extremely tiring day. Over the next two days, we saw several breathtaking places including Chimera Lake, Such Pass, St. John's Church, Bara Pathak Temple and Khadija Lake. The experience was awesome. Dalhousie is a beautiful place that encompasses several spectacular tourist attractions. The best part is that it is tranquil unlike many other hill stations that are overcrowded most of the times.

Road trips with family strengthen the familial bond. Many of the fun things we indulge in during these trips are missed out in the routine life. It is these little things that bring us closer. I will always cherish the moments we spent on my road trip to Dalhousie.

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rainfall and when it rains our eyes sparkle with joy. On the first rain of the season we just run out of our house into the rain giggling and smiling with delight. It feels so refreshing after the sunny days to take cool natural shower in rain.

We like to play in the garden as the rain showers pour on us. We sing songs and jump in the muddy puddles to splash water on each other. We fight like cats and dogs on the ground splashing water and sticky mud on each other. Our mothers always shout on us but we just like to ignore and enjoy. I hate it when the rain stops and we need to get back. My mother cooks moong dal and onion paktors with mint chutney on these days. I just love this combination. After taking shower we enjoy eating paktors together.

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A rainy day is a special day for everyone however rains hold a special significance particularly for the

farmers. The growth of their crops depends largely on the rains. The right amount of rain is what they yearn for each year. Monsoon season these days gets delayed often and rains have become quite erratic. The farmers in such a situation wish and pray that the rain falls at the right time. The first rainy day of the season is especially a day to rejoice for the farmers. This is because it marks the beginning of the monsoon season that promotes the growth of crops. There is greenery all around. The fields seem to appear full of life on a rainy day.

Nation building involves social harmony, infrastructure development and economic growth of the nation. Participation of youths in growing economy is essential key to national development. Youths are the greatest power of the country therefore significant efforts must be established to help empower them to competently and adequately contribute towards sustainable development of the nation. National development will improve the lives of citizens with the growing economy.

Government should empower youths by including them in the decision making process. The participation of young people in growing economy

will instill the feeling of patriotism and encourage them to be responsible citizens of the nation. It will also increase their interest in the progress of their nation which will lead to national development. It is vital to build the future of our youth by providing them education and other means for development.

Education helps in building the right foundation for a person and empowers him to make independent choices and chase his dreams. Employment opportunities must be provided to youth to let them put their energy and skills into practice for their personal growth and economic growth of the nation which will ultimately lead to the overall progress and development of nation. It is important to include youths as participants and respected leaders to use their power. Government should formulate policies to encourage and engage young people in important activities of the nation.

Young people are full of ideas and have infinite source of energy to put their ideas into practice. They have strong opinions and do not fear voicing them. Youths are up to date with current happenings and latest technology. So, they are very well suited for various jobs. Youths today are ready to take risks, face challenges and try hard to achieve their goals. They

believe in themselves and their abilities to turn their passion into profession which makes them more successful.

Youths want the nation to be a better place. They can criticize the system of the nation as well as stand up to bring about changes towards making the society a better place. They are strong enough to fight for their own rights and for the rights of others as well. They never fear to support the right and raise voice against the wrong. They can fight against social evils – be it corruption, inequality or terrorism. They use social media and other platforms to raise voice against issues such as gender inequality, sexual harassment, religious issues, etc. They don't blindly accept the notions that are unfair or inhuman.

Youths of our country are open to experimentation and have succeeded and shined nationally and internationally in various fields like dance, music, photography, blogging, modeling, acting, writing and so on. They are smart, witty, intelligent, forward-looking and socially active animals who can bring a Huge change. They are passionate about what they do, which is important for progress.

Today, youths are rocking on social media as influencers in fashion, photography and what not.

They are bringing positive changes in the society. They make sure that they are seen and heard. They are full of spark and courage to explore everything. They know what they are capable of and how to use their potential in the right direction.

Youths are bringing change with changing times which leads our nation to progress. However, they should get the motivation and support they need to deliver up to their full potential and energy.

As we all know that we live in the age of science and technology. The life of every one of us is highly depends on the scientific inventions and modern day technologies. Science and technology has changed the lives of people to a great extent. It has made life easy, simple and fast. In the new era, the science development has become a necessity to finish the era of bullock cart and bring the trend of motorized vehicles. Science and technologies have been implemented to the every aspect of modernization in every nation. Modern gadgets have been introduced to every walk of life and have solved almost all the problems. It was not possible to have all the benefits of it without implementing it in the sectors like medicines, education, infrastructure, electricity,

aviation, information technology and other field.

What improvement we are seeing in our life on daily basis is because of the science and technologies. For the proper growth and development of the country, it is very necessary to go science and technology hand in hand. Villages are getting developed to towns and towns to cities thus expanding the greater horizons of economy. Our country India is a fast developing country in the sense of science and technology.

Technological development in any field enhances the economy of any nation. In order to improve the power of science and technology in India, Indian government has made Council of Scientific and Industrial Research in the year 1942 and Board of Scientific and Industrial Research in the year 1940. In order to emphasize the growth of science and technology in the country, Indian government has established a chain of national laboratories and research institutes in various regions.

Science and technology has become a debated topic in the society. On one hand, it is necessary for the modern life where other countries are continuously developing in the field of science and technology. It becomes very necessary for other countries too to grow in the same way to be strong and well

developed like other countries for the future safety and security. It is science and technology which helps other weak countries to develop and be strong. We have to take support of science and technology forever to improve the way of life for the betterment of mankind. If we do not take the help of technologies such as computer, internet, electricity, etc. we cannot be economically strong in the future and would be backward forever even we cannot survive in such a competitive and technological world.

Herron DEO Test 20.08.2019

This paper explains what SMART CARD is and how SMART CARD works. You will also get information of the behind picture of the working smart card and this paper also explains smart card with help of some examples and benefits of smart card.

Plastic cards are a part of the way of life in most industrialized countries. We use them to identify ourselves, to travel, to gain access to buildings, to obtain cash from our bank, and to pay goods and services. We are regularly offered new types of cards; many people collect every card and they are offered, while others feel that their lives are already excessively controlled by anonymous pieces of plastic. Some of today's applications, such as health cards, retail

loyalty, and portable data collection, require more data to be stored on the card than a magnetic stripe card can comfortably handle. Many of these cards are in fact memory cards rather than microprocessor cards; both types are often referred to as SMART CARD.

A smart card resembles a credit card size and shape, with an embedded microchip that can be loaded with data, used for telephone calling, electronic cash payments, and other applications, and then periodically refreshed for additional use.

A Smart card is a portable devices that contains some non-volatile memory and a microprocessor. The microprocessor is under a gold contact pad on one side of the card.

This card contains some kind of an encrypted key that is compared to a secret key contained on the user's processor.

N 1970 a Japanese inventor, Unitika Ardmore, filed the first patent for what we would now call a SMART CARD. His patent was restricted to Japan and to the technical aspects of the invention. Japanese cards manufactured under an Ardmore licensed. Unitika Ardmore of Japan filed the first and only patent on the smart card concept. Roland Moreno of France

filed the original patent for the IC card, later dubbed the “smart card”. Three commercial manufacturers, Bull CP8, SGS Thomson, and Schlumberger began developing the IC card.

Motorola developed the first secure single chip microcontroller for use in French banking. Field testing of serial memory phone cards took place in France – the world’s first major IC card test. Field trials of ATM bank cards with chips were successfully conducted. 14,000 cards equipped with the Bull CP8 were distributed to clients of the Bank of Virginia and the Maryland First large-scale smart card application implemented in the United States with the U.S. Department of Agriculture’s nationwide Peanut Marketing Card.

First Electronic Benefits Transfer (EBT) smart card project launched for the Wyoming Special Supplemental Nutrition Program for Women, Infants, and Children (WIC). A nationwide prepaid (electronic purse) card project (DANMONT) was started in Denmark. Field test of multi-function smart card applications in Rennes, France, where the Telecare function (for public phones) was enabled in a Smart Bank Card.

Europa, MasterCard, and Visa (EMV) published joint

specifications for global microchip-based bank cards (smart cards). Over 3 million digital mobile phone subscribers worldwide begin initiating and billing calls with smart cards. Over 1.5 million VISA Cash stored value cards were issued at the Atlanta Olympics. Microsoft announced its new Windows smart card operating system. France began piloting a smart health card for its 50 million citizens. The Smart Access Common ID Card program established a contract vehicle for use by all Federal agencies

Smart cards are portable data cards that must communicate with another device to gain access to a display device or a network. Cards can be plugged into a reader, commonly referred to as a card terminal, or they can operate using radio frequencies (RF). When the smart card and the card reader come into contact, each identifies itself to the other by sending and receiving information. If the messages exchanged do not match, no further processing takes place. So, unlike ordinary bank cards, smart cards can defend themselves against unauthorized users and uses in innovative security measures.

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leads our nation to progress. However, they should get the motivation and support they need to deliver up to their full potential and energy.

Blood donation refers to a practice where people donate their blood to people so it helps them with their health problems. Blood is one of the most essential fluids of our body that helps in the smooth functioning of our body. If the body loses blood in excessive amounts, people to get deadly diseases and even die. Thus, we see how blood donation is literally life-saving which helps people. It is also a sign of humanity that unites people irrespective of caste, creed, religion and more.

In order to raise awareness about this life-saving procedure, the world observes 14th June as Blood Donor Day. It promotes blood donation and urges people to save lives by donating blood. Furthermore, this day is quite an important day as it makes people about safe blood. People need to know the basics to be able to donate blood. For instance, there are certain criteria one must fulfill to donate blood. Not everyone knows that. Thus, this day helps in doing so. Most importantly, on this day, the WHO organizes a

campaign that invites people to donate blood. A person eligible to donate blood must fall in the age bracket of 17-66 years of age. They must weigh more than 50 kgs and have sound health. People suffering from diseases like

Diabetes, hypertension and more cannot donate blood. Therefore, on World Blood Donor Day, they also appreciate blood donors for their contribution to making the world a better place. As we all know by now, blood donation has a lot of benefits. Why a person requires blood has various reasons. It may be an illness or also an accident, nonetheless, it is important.

The blood that we donate helps a person in need. It enhances their health condition and makes them overcome their critical situation. In other words, blood donation does not simply help that specific person but also contributes to a responsible gesture towards society. Moreover, it also enhances the health of the donor. As the cell depletion allows a way for production, not new cells that freshen our body system. Furthermore, it also revitalizes our body for better health. Next up, a single blood donation helps at least three people in need. Thus, imagine

how one donation can make a difference in so many people's lives. In addition, blood donation makes the work of blood banks easier. It stabilizes their collection which helps other people get blood urgently.

The demand is still higher than the supply in blood banks, so we must donate more and more of it to help people. Other than that, blood donation also helps us know about our bodies. As a blood donation requires a preliminary health check-up, we get a complete diagnosis. It makes us aware of the levels of iron, hemoglobin, cholesterol and more. Thus, we see that blood donation is an important procedure in saving human life. It is a great initiative that must be encouraged everywhere.

Corruption in the Indian society has prevailed from time immemorial in one form or the other. The basic inception of corruption started with our opportunistic leaders who have already done greater damage to our nation. People who work on right principles are unrecognized and considered to be foolish in the modern society. Corruption in India is as result of the connection between bureaucrats, politicians and criminals. Earlier, bribes were paid for getting wrong things done, but now bribe is paid for getting right

things done at right time. Further, corruption has become something respectable in India, because respectable people are involved in it. Social corruption like less

Weighing of products, adulteration in edible items, and bribery of various kind have incessantly prevailed in the society...

In today's scenario, if a person wants a government job he has to pay lakhs of rupees to the higher official irrespective of satisfying all the eligibility criteria. In every office one has either to give money to the employee concerned or arrange for some sources to get work done. There is adulteration and duplicate weighing of products in food and civil supplies department by unscrupulous workers who cheat the consumers by playing with the health and lives of the people. In the assessment of property tax the officers charge money even if the house is built properly according to the Government rules and regulations.

Political corruption is worst in India. The major cause of concern is that corruption is weakening the political body and damaging the supreme importance of the law governing the society. Nowadays politics is only for criminals and criminals are meant to be in politics. Elections in many parts of the country have

become associated with a host of criminal activities. Threatening voters to vote for a particular candidate or physically prevent voters from going in to the polling booth-especially weaker sections of the society like tribal, dalits and rural woman occurs frequently in several parts of the country. Recently, the Government increased the salary of the M.P.'s from Rs.16, 000 to Rs. 50, 000, that is 300% increase to the existing salary. But many of them are unhappy with rise and want the Government to increase the salary to a much more extent. This clearly shows how the politicians are in constant thirst for monetary benefits and not caring about the welfare of the people. Tax evasion is one of the most popular forms of corruption. It is mostly practiced by Government officials and politicians who lead to the accumulation of black money which in turn spoils the moral of the people.