

# PUTNAM'S MONTHLY.

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## THE UNITED STATES COAST SURVEY.

HOW much this vast work has contributed to the progress of science and scientific culture in America, can only be known by a careful study of its history. It has already made its mark on our foreign reputation; it has helped to give a vigorous start to various important branches of study in our own land. It is thus rightly ranked among those agencies which are establishing our national reputation on a sure and noble basis, while it is one of those means by which the highest types of mind will be called into original action. Boscovich, Delambre, Arago, Bessel, Schumacher and Struve, are but instances in which national surveys have called forth eminent genius, and given it a sphere of activity and renown otherwise unattainable. Companionship in this distinction is not less the right and possibility of our own Coast Survey.

Among the readers of our Magazine, there are, doubtless, very few to whom the nature and character of this great enterprise is wholly unknown. Yet we are confident it will be no unwelcome service, if we here present a brief account of its history, objects, organization, methods, and results.

All accurate geography and hydrography is of modern, and indeed of quite recent origin. The fabulous histories of Herodotus are even outdone in grotesqueness by his geography. Ptolemy, Hanno and Strabo, at least, fully prove that scientific geography was a thing unknown to Greece and Rome. The

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revival of letters was marked by little advance in knowledge of the earth, until, by the improvements in astronomy and navigation which followed the advent of Copernicus, Galileo and Columbus, clearer ideas of the earth as a whole, and of the relations of its parts, began to grow into the mass of common knowledge. Navigation, stimulated by the hope of gain and by ambition to discover and take possession of colonial empires, became bold, and fearlessly ventured into unknown regions. Island after island, coast after coast, was explored. Little by little, the grotesque fancy of the early mapmakers was chastised into a rude approach to conformity with fact. Homans, Tardieu, D'Anville, Cassini, Arrowsmith, Jeffreys, with other compeers and successors, bestowed care on the style and accuracy of their maps and charts. The Spanish charts embodied the results of the explorations which distinguished the palmy days of Spain, while the *ruttier* or sailing directions absorbed the knowledge which the charts did not convey. The nautical treasure-house reared by Hakluyt has drawn much of the early geographic lore into its rich repository. Half fact, half fancy, now an error and now a real discovery; its strange dialect lures the reader on to roam the Indies and to traverse the shore of our then half-fabulous land. A vast deal of true geography grew up in those heroic days, but it was mixed with still more of error. Our Pacific coast was then, indeed, *terra*

“But your bold Burgundian baron  
Never checked his bridle rein,  
Thinking palms of Heaven fairer  
Than the chestnuts of the Seine.

“When the very charger quivered,  
He spurred him to the fray,  
In his stirrups rose and shouted—  
‘Chastillon! Chevalier!’

“But his voice no vassal heeded;  
And no vassal saw him more,  
For he rode with fear behind him,  
And with martyrdom before.

“Oh! the hateful town of Kazel!  
Oh! the hateful market-place!  
Where the Christian army waited  
The haughty Soldan’s grace;

“A Turkish noble fretted  
His war-horse, where I stood;  
It was the horse of Chastillon,  
‘The bridle was brown with blood.’”

#### A NIGHT NEVER TO BE FORGOTTEN.

IN the winter of the year 18—, business of an important and peculiar nature obliged me to leave home, and travel into the western part of Virginia. Roads were bad, and as to stage-coaches, the probability is they had never been dreamed of. In that good old time everybody rode his own horse. Mine was the exact counterpart of Rosinante, as he is depicted in the Penny Magazine, but without that extraordinary length of tail which the genius of Cervantes has ascribed to that famous charger. Yet, he was a faithful beast, and carried me many a rough mile on very short commons. Peace be with his memory!

It was a period of unexampled cold, though unaccompanied by snow.

Owing to quite a singular conjunction of circumstances, there was less travel than usual, this year, through the mountains. I recollect that the northern papers, which were rarer in those days than the London journals are now, were filled with dreadful accounts of extreme weather in the interior of New York and Ohio: canals and rivers frozen up;

men found dead in the road; heart-rending suffering in the cities.

It was a very chilly evening in the latter part of February. A freezing wind shook the dry leaves that still clung in some places to the oak trees, and swept the little dust that lay along the road-side in fantastic circles round my head. The sun was low, and partially obscured by a mass of black cloud that lowered on the horizon. I had given the reins to my horse, and fallen into a brown study, as was very much my habit. A sharper gust than usual restored me to perfect consciousness, and I began to look around me in some alarm. I had wandered on without taking note of passing objects, and now everything was new to me. Before me lay a waste, desolate tract of thinly-scattered pines, and in the distance (an unusual sight in the back woods), an old frame house. This, in some degree, relieved my apprehensions. For, somehow or other, all the stories I had ever read of lost travelers, robbers, murders, or ghosts, seemed to come up before me unbidden, and would not down. But

the sight of human habitation, the blue smoke curling from the chimney, and the cheerful crow of the cock, speedily reassured me, and brought me back to common sense.

As I approached the house and began to examine it closely, I remarked an air of dilapidation and extreme age about it, not at all calculated to allay the slight tremor which I still felt, in stopping for a night in a country I knew nothing about, and especially in such a desolate wilderness as this.

As the shadows of the night began to brood over the earth, my old terrors returned. I thought of Audubon's adventure, one night, with an old hag, in just such a place as this. But Audubon was always scrupulously armed, and, upon the occasion in question, saved his life only by a timely resort to his double-barrel gun. I now sincerely regretted my folly in not having provided myself with a brace of pistols. As it was, I had nothing but a stout hunting-knife, with which to defend myself in case of danger.

As I looked up from these reflections upon the scene that was spread around me, I could not fail to see that a storm was brewing, and that, too, of no common character. Notwithstanding the season of the year, the air was surcharged with electricity. A short time before, the sun had gone down under a cloud, with a sort of lurid and unnatural splendor. A portentous rack was now coursing furiously through the fields of air. In the west was a billowy pile voluminously massed up, big with thunder, and black as Acheron. The far-off pines, which looked preternaturally dark to me, shook with the distant premonition of the tempest.

There was always something peculiarly awful to me in a distant storm. To stand in temporary safety and look out upon the horizon, darkened by descending rain—to see the battle from a safe height, and to brave the brunt of the engagement, are two different things. But there is a situation still more impressive than either. It is to be for the present removed from the field of conflict, but in close proximity to it, and in momentary expectation of becoming an actor in the bloody scene. The excitement of action conquers fear. But suspense is horrible. We endure imaginary tortures ten-fold more poignant than the extremities of war. Besides, we

see and hear what we could not, of the horrors of the battle, were we actively engaged ourselves. The upturned faces of the dying; the mingled groans of agony and execration; the demoniac howl of victory; the indiscriminate slaughter; the shriek of despair; the gory heaps of slain and wounded; the cruel clang of trumpets and the din of drums—these things, in the cool composure of inaction, ring in the ear and cause the eye to blench that would else be unmoved.

I stood for a moment, and gazed around me in every direction. The silence was unbroken save by the swift rush of the wind as it sighed through the pines, and shook down the last red leaves from the oak at my side. Occasionally the cloud in the west would part and suddenly fly asunder, disclosing a blaze of intense light, then as suddenly flash back again, leaving the world around me blacker than before. I listened in vain, as yet, for the sound of the thunder. The silence was almost insupportable. I felt that it must inevitably come at last, and I could not bear to wait. I shuddered. The awfulness of the night and the mystery of the place appalled me.

Just then a flash of lightning showed me that the door of the house was ajar; a moment after I heard the first mutterings of distant thunder. A red light, apparently from the hearth, streamed through the opening, and threw a weird glare over the bare patch in front of the building. There was no fence—nothing grew there. The space was covered with stones and scrubby bushes. I thought, also, that I saw the outlines of a dog moving over it; but just then the door was shut, and I was left again in the dark. This glimpse of life gave me new courage, and I proceeded in the direction of the house, which was now not far off. The nearer I got, the older and grayer did it appear. The very configuration of its mouldy boards had an air of antiquity about it. I could just see that there was moss among its black shingles, when the door was reopened from within, and I entered. I found no one inside but a decrepit woman and a child. For an instant I thought of Audubon, but I beat back the reflection, and sturdily asked for a night's lodging. I found the old crone very deaf, but, as soon as she comprehended my question, she readily consented to give me a sup-

per and bed. Her countenance at once disarmed my fears; for, though she was old and shriveled, there was nothing harsh about her physiognomy. She was a very lean, withered old woman, in a faded calico gown, and an old-fashioned white cap. There was nothing very singular about her appearance, except her extraordinary height; which I remember well. The boy was one of remarkable beauty. She said he was her grandson, and that his father was dead. The woman, after a little bending over a roaring wood fire in the chimney-place, set before me a savory dish of venison, with a plate of hot corn hoe-cakes. My appetite, always good, was sharpened by a long ride and an equally long fast; and my native hardihood having now completely passed out of its brief eclipse, I did full justice to the old woman's smoking viands. I had risen early that day, and had taken very little rest on the road, and, being comparatively unused to long journeys in the saddle, felt considerably fatigued, and retired early to bed. I was conducted up a very wide and somewhat rickety staircase into a large, unfurnished room overhead. The floor was unplanned, and the cracks gaped so, that I could see the old woman walking nervously about in the lower apartment, apparently scouring some kitchen utensil. The same cracks afforded a partial entrance to the broad glare of the fire, which illuminated the room with a strange and fitful light. There was but one window, and many of the panes were cracked. As I looked out, I saw that the storm was rapidly coming up, and would soon be upon us, in all probability, with tremendous power. There was nothing in the room but a plain bedstead of antique figure, two rush-bottom chairs, and a long, narrow hair-trunk. I love to dwell upon the most trifling particulars of that night—a night that will haunt my dreams forever.

And now, in the dimness and silence of my chamber, a strange fear came over me. I could not account for it. I tried to shake it off. It still clung to me, or rather overshadowed me—like a chill, dark shadow.

I am a believer in presentiments. I am firmly convinced that a great crime or a great sorrow sometimes anticipates its coming, and shows its dread disk above the horizon before it has actually risen upon us. I am fully persuaded that I had

that night, in the horror that preceded sleep, a faint adumbration of the horror that was to succeed. I flung myself into bed and wrapped the covering around me, with a determination to reason myself into sense again. Reason seemed for the time palsied. But what reason was powerless to do, fatigue accomplished. I fell asleep.

And as I lay there sleeping, I had a dream. I thought that the loneliness of the house was increased ten-fold. I thought that I was alone in it, owing to some strange, fantastic whim of fortune, such as only exists in dreams. And I thought that I was lying in the same queer, quaint old bed, with its four tall spectral posts, listening to a dog that was howling outside, and going round and round the house. It must have been a confusion of the dog I thought I had seen in the bright patch before the door, and the dog Mephistopheles pointed out to Faust, coursing the meadow in mysterious circles. And I thought that this dog troubled me exceedingly, so that I could not sleep. There was something unearthly in its wail; and sometimes I thought there was blended with it another sound, a sound as of one in the extremity of mortal anguish. At last I could stand it no longer, and thought I descended to the door and opened it.

I had scarcely touched the latch when a female figure fell into my arms, and, as I thought, no tongue could describe the expression of her face. It was an expression of the most fearful amazement, mingled with one of the most poignant suffering. She had the face of a person who had suddenly had a glimpse through the little gate in the side of the hill, which was opened for Christian and Hopeful, and had seen her dearest friends in torment. And I thought that her fearful gaze was directed towards an obscure corner of the room, which had escaped my eye. And as I turned to look in the direction indicated, the figure of a man rose suddenly before me, out of the corner, with every limb and lineament of his body in a bright burning blaze. He seemed to me perfectly transparent, and, from the crown of his head to the soul of his foot, he was pure flaming fire. I stepped back aghast, as this appalling vision burst upon me, and was sinking away in a fainting-fit, when the apparition suddenly seized the woman in his blaz-

ing arms, and vanished through the roof with a shriek and a terrific clap of thunder which awoke me.

My eyes opened upon a spectacle never to be forgotten. I knew instantly that the house was struck by lightning. The luminous fluid was darting down the wall, just opposite to my bed, and the room was in a blinding blaze of light. In the twinkling of an eye all was dark again.

I was terribly jarred, but otherwise unhurt. As soon as I could recover from the shock, I called to the old woman.

There was no answer. The thunder was still roaring overhead.

I called again with a louder voice, in a great alarm, but with no better success.

I then got up, slipped on my clothes, and crept down stairs.

By my watch it was a quarter past one. The lightning had passed down very near the chimney, and had left a blackened track behind. There were a few half-smothered coals on the hearth below, which served to give me a little light. I looked around at first, in vain, for the woman. I tried to call, but the sound stuck in my throat. At last, attracted by the scorched boards, I drew near the corner of the room opposite the door, and beheld with horror the object of my search. She was a blackened corpse. The boy was bending over her—stark blind.

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#### ABOUT TREES.

SOME people say that whatever has the stamp of antiquity is credible, and that if great and good people in the past have believed a thing to be true, then that is a reason why great and good people in the present (like the readers of "Putnam") should also believe it, and this is called the "authority of antiquity." If this be so (and I will not pretend to say that it is,) then trees have souls, and are worthy of salvation, which, after a sort, I am to preach. For in the dim-lighted past every tree had a spirit lurking in its recesses; in the winter, down below the iron grasp of the frost king, it manipulated the delicate spongiolate roots; in the summer it whispered in every leaf, blushed in every blossom, and in the autumn, rounded its delicious blood into plump or perfect fruit. This it was very good of those spirits to do, and for it they deserve and shall have my heart-felt thanks, whatever other folks may conclude to do about it.

The authority for this belief can be found in Pigott's Scandinavian Mythology, which any infidel may consult. But further than this, do we not *know* how one of those wicked ancients shut up a real and beautiful goddess in a tree, where she talked, and moaned, and sang, for many centuries, till one of those days a hero came along and split her

out? She was, for a time, the inhabitant and spirit of that tree, and this proves that trees may have spirits, though they are not always foreigners and melancholy as she was.

This belief, at least, gave an individuality and meaning to the beauty and grandeur of trees, and a reality to the mystery of growth, which commonplace folk, having cast it away as heathenish, and not having accepted a belief in the universal presence of God in nature in its place, cannot understand. They look upon trees as so much undeveloped boards or oven-wood, which man is to bring into shape and sell.

Since the day of pious Plato, that singular god, PAN (a Universalist rather than a Calvinist, I should say), has not been heartily revered; while to-day, Waldo Emerson, and that kind of people who talk of setting up their altars in the green shadows of the trees, out in the soft summer air, are in danger of losing their church privileges, and have been called Pantheists. Now, how far this is becoming and right—first, the calling them names, and second, the fraternizing with them—it is for every religious-minded person to consider.

Mr. Bryant has said:

"The groves were God's first temples."

For the present I stand by him, and am