excitement. Nearer and nearer they came, until Tuxcar stood before her.

"'Narramattah,' he cried, 'light of the moon, I have a captive. Look upon him. Did you ever see him before?'

"She grew ghastly pale, and came near falling to the ground, for there, bound with cords, stern and haughty even in captivity, lay the brave warrior of the Tuscororas. Tuxcar knew her story, and a smile of vengeance curled his lips as he continued,—

"'Narramattah, many moons ago I wooed you, and you thought in vain. I swore by the Great Spirit that you should not wed any other man. I have not forgotten that vow. Consent to be my wife, and your lover shall go free; refuse and you shall have the pleasure of seeing him die before your eyes.'

"Narramattah hesitated; but the Tuscarora's blood began to boil in his veins, and his face grew black with wrath. He cast a defiant look at Tuxcar as if to say, 'Tyrant, do your worst!' Then looking at the fawn-like Narramattah, he said, tenderly,—

"'Narramattah, if you love me, remember your vow. Let me die a thousand deaths, rather than you should become the wife of a brute.'

"The Indian maiden burst into tears, but not a mark of pity softened the iron features of the marble-hearted tyrant. Tuxcar stood coolly waiting for an answer. But all the Indian blood in her veins came to the maiden's aid, and she determined to die with her lover.

"'Tyrant!' she said. 'Tyrant!" she repeated, as if the words sounded like vengeance in her ears, 'I defy you! I dare you!'

"'Ah!' cried the Tuscarora, 'that sounds like you, my darling one!"

"'Well,' said Tuxcar, 'perhaps the blazing fagots may change her mind. Go,' said he to the warriors, 'prepare the captive for execution.'

"The maiden's resolution wavered. She could not see the man she loved die, when any sacrifice on her part would save his life; so in accents broken, she cried,—

"'Stop! oh, stop! give me time.'

"Just then a slight rustling was heard in the leaves, and an arrow pierced Tuxcar's heart. Ocomo had come to the rescue with his little band, which had always remained faithful to Manoah. A fierce conflict was carried on for a few moments, but so unexpected had been the shock, that Tuxcar's warriors fled in every direction. The Tuscarora was saved, but in the affray Ocomo received his death-wound. Then arose the cry,—

"'Manoah! Manoah shall be our sachem.'

"The old chief was brought out, and covered with all the honors that lay in the power of his subjects to grant, but the excitement was too great for him, and he fainted and died. The warriors turned to the Tuscarora and said,—

"'Our captive shall be our king.'

"He accepted the offer, and during years of happiness he and his loving bride visited almost every evening the grave of their benefactor, and watered it with their tears. And now, sir, my story is ended."

"Thank you, thank you; that simple legend has at least taught me something of true friendship,"

"Then you are paid for your attention. I bid you good day."

And with a bow he was gone.

SCIENTIFIC.

EARLY TRACES OF MEN.

When quarrymen uncovered slabs of Connecticut sand stone, bearing impressions exactly like bird tracks, geologists reasonably inferred that, at the time the rock was forming and was as yet but wet sand, there existed gigantic birds or bird-like animals, which strode along these ancient sea shores much as beach birds do along the shores of to-day. The fact that traces of birds had never been found before in strata so ancient, much less the popular theory that birds were of later creation, did not invalidate the inference; one positive fact, as is well known, outvalues any amount of negative assertion, and the old theory had to give way.

When workmen, digging a canal near Stockholm, came upon a buried hearth with charcoal on it, exactly like those which uncivilized people no make and use, the natural inference was that some one of more than brute intelligence had lived there before the overlying earth was deposited. Had the hearth been slightly buried, say six feet below the surface, there would have been no question of its artificial origin; it would have been accounted the work of man as surely as if a human skeleton had been found lying beside it. Should the inference be considered less legitimate because there happened to be sixty feet of earth above the hearth? True, that accumulation of erratic blocks and sand and sea shells gave unmistakable evidence of great geological changes since the hearth was last used—glacial action, submergence of the land and its subsequent elevation,—all involving long period of time; but that told not so much against the testimony of the hearth as against the belief that man was of more recent creation.

Now that such witnesses have been multiplied to an almost infinite number, forming a continuous chain from the earliest historic times far back into the tertiary period, the evidence is overwhelming; the "alleged" antiquity of man, as it is styled by those who have never investigated the matter, passes from the domain of hypothesis into the region of demonstrated fact. The vista of human antiquity opened up by these surprising discoveries is indeed vast, so vast that even those who have most patiently followed them and assisted in their development are overwhelmed with the thought of it. No wonder, then, that those to whom it comes as a sudden revelation should flatly refuse to admit its reality. As Mr. Evans remarks in the closing paragraph of his magnificent work on the ancient stone implements, weapons and ornaments of Great Britain, "it is impossible not to sympathize with those who, from sheer inability to carry their vision so far back into the dim past, and from unconsciousness of the cogency of other (than the fossils described in the work abovementioned) and distinct evidence as to the remoteness of the origin of the human race, are unwilling to believe in so vast an antiquity for man as must of necessity be conceded by those who . . . have fully and fairly weighed the facts which modern discoveries have unrolled before their eyes." Yet while we sympathize with the natural incredulity of those who lack the basis of intelligent judgment, we need not imitate their unreasoning assurance in contradicting the deductions of science while refusing to examine either the ground of their own conviction, or the evidence of the different convictions of others.

The geological proofs of the antiquity of man, to which Mr. Evans alludes, are of threefold character:

1. The association of human bones with the bones of extinct animals, under conditions which prove them to be of equal age.

2. The signs of human action on the bones of extinct animals: the breaking of them to extract the marrow, after the manner of existing savages; the shaping and polishing of them for use and ornament; and more instructive still, the tracing on them of the outlines of mammoths and other animals now extinct or driven by change of climate to distant parts of the earth.

3. The discovery of wrought stone implements, weapons and ornaments under undisturbed strata demonstrably belonging to periods reaching as far back as the pliocene period if not farther.

Detailed descriptions of the evidence, which are as marvelous in number as in variety and interest, may be found in the elaborate works of Lyell, Lubbock, Wilson, Evans and other English scholars as well as in numerous French and German writings; or the evidences themselves may be studied *in situ*, and in numerous rich collections of archæogeological specimens, by any one disposed to do so. The purposes of this article admit but the briefest mention of a few of the most ancient of these trace of early ma.

First, for our own country. Perhaps the oldest skull yet discovered is the one found in the pliocene strata of Cable Mountain, California. Having no companion in its almost incredible antiquity, it was natural at the time of its discovery for men to ridicule the age accorded to it, and to take refuge in the assertion that it never came from the place alleged, or, if it did, it must have come there by irregular means. But when many corroborating evidence of human existence during the pliocene period are found, as they have been, in the same strata under conditions which satisfy careful geologists that the strata had not previously been disturbed, the astonishing character of the testimony is not sufficient ground for flatly rejecting it. More recently, similar fossil evidences of perhaps a still earlier presence of man on our Pacific coast have been discovered. At a meeting of the San Francisco Academy of Science, in May last, Dr. Blake presented the Society with a number of perforated implements of serpentine, which had been taken from stratified rock near the summit of the coast range, 1700 feet above the sea. They were found, embedded in argillaceous shales, in digging away the side of a hill for the foundation of a house, and, says Dr. Blake, were "evidently fashioned by the hand of man or some animal capable of using its anterior extremities so as to fashion objects to meet its wants, and apparently possessed of sufficient intelligence to use lines or nets for catching fish; as it would seem that these instruments must have been used as sinkers." Dr. Blake pronounces the rock in which these interesting specimens of primitive manufacture were discovered, to be of an age not later than the pliocene period; while professor Whitney, the State Geologist, is of the opinion that it is still more ancient. Anyhow, man appears to have antedated the upheaval of the coast range and the attendant geological changes; a remoteness in time which makes the fossil skeleton found at Natchez and New Orleans, and the human fragments under the Florida canals, seem comparatively modern. Yet at that distant period, man had existed long enough to overspread a considerable portion of the earth, if not the whole of it, since traces of such primeval men have been found wherever they have been diligently sought for.

Scarcely a decade has passed since geologists began to admit the possibility of finding traces of men in glacial or preglacial strata; yet already human bones or unquestionable evidence of human handiwork have been found in the deposits of those early times, in connection with the remains of supposed prehuman animals, in England, Scandinavia, Belgium, France, Spain, Italy, Germany, India, Australia, and South America, as well as in our own country; and the more carefully the search has been conducted, the farther back the history of man has been pushed into the distant past. Every inch of the ground has been fought over, the firm conviction of the early investigators that man could not be so old a creature causing them to receive every discovery with downright disfavor. Such an upturning of all the recognized foundations of history seemed of necessity to involve some hidden error. But it did not. The facts are so numerous and intelligible that the most skeptical enquirers have been convinced, and now not a few of them hold high rank among the authorities of the young science of archæogeology. Among these is the venerable Sir Charles Lyell, whose caution is not less remarkable than his courage. After studying some of the earlier discoveries of human fossils, he admitted their preglacial origin and thought we might expect to find the remains of man in the pliocene strata. Writing after the discovery of such pliocene remains, Sir John Lubbock set the time of the first beginning of the human race as far back as the miocene, or middle tertiary period; while Alfred Wallace carries the date still farther back, the eocene period; this, however, on theoretical grounds, since the traces of men earlier than the pliocene period are few and somewhat questionable. In what is said to be miocene strata near Pontlevoy, France, a M. Bourgeois has found numerous wrought flints in a stratum containing the remains of a long extinct animal allied to the rhinoceros, and beneath a bed which contains the mastodon, the dinotherium and the rhinoceros. Similar evidence of man's presence and skill have been found in the miocene beds of Aurillac, with the remains of animals long since extinct; and at Pouance another observer, M. Delaunay, has discovered a bone of a herbivorous cetacean of the miocene period, which bears the marks of cutting instruments, such as must have been made when the bone was in a green condition. Doubtless these faint foreshadowings of man's presence in the middle tertiary will be strengthened by future discoveries, as the first evidence of his existence in the later tertiary and quarternary periods have been.

The time required for all the geological changes which have taken place since man demonstrably entered upon the struggle for existence is simply inconceivable. The glacial limit lately set to his history has been overpassed, and his dominion extended perhaps farther beyond it than it is back of the present. "We of the present generation," says Sir Charles Lyell, "when called upon to make grants of thousands of centuries in order to explain the events of what is called the *modern* period, shrink naturally at first from making what seems so lavish an expenditure of past time." Yet, however much the imagination may take alarm at the immensity of such periods, the sternest reason declares them to be necessary unless we stand ready to deny the orderly sequence of events. The same sort of evidence which proves the existence of man on earth six thousand years ago proves his presence here as many thousand centuries.

AN AIR SHIP AT LAST.

A VESSEL WITH WINGS WORKED BY STEAM—ONE HUNDRED MILES AN HOUR.

For may years M. L. B. Hunt, a talented mechanic of Auburn, N. Y., has been constructing a vessel with which to navigate the air, and is convinced that he has at last solved the problem of aerial navigation. The car, which is destined to carry passengers is of wood, 30 feet long, 8 feet high and 8 feet in width. Four wire cables connect it with the engine room 20 feet above. The car will be fitted up in an attractive style, and affords accommodation to forty persons.

The motive power of the ship is steam, one of Silsby's rotary 50-horse power engines being used. It is so constructed as to turn upright shafts, one with the other, and revolving in opposite directions. To the outer shaft are attached four wings 9 feet wide next the shaft, 6 feet at the extreme end, and 12 feet long. To the inner shaft are fastened four similar wings ten feet above the others. They are made of sheet iron, slightly concave, and incline at an angle of 20 degrees. When the machinery is set in motion those wings revolve at the rate of 150 times a minute, and it is claimed by the inventor will lift the vessel, weighing about six tons, and laden with six tons more.

The desired direction is given the machine by four wings ten feet long, acting on a horizontal shaft revolving at a greater velocity than the lifting wings, and manipulated at the will of the operator or engineer. The whole apparatus is steered by a sheet iron rudder, parallel to the shaft of the engine, at the right of the machine, and sixteen feet long by five wide. From the car to the top of the shaft the vessel measures fifty-eight feet. It has cost $12,000.

Mr. Hunt does not entertain the slightest doubt of the success of his air ship. He says he will be able to propel it safely to any point at the rate of 100 miles per hour. He is constructing a vessel of minature dimensions for the inital trial, which will be made at an early day.

Professor Fleming Jenkins recently made experiments to ascertain what difference would appear in the power required to drive a mill when, no cotton was being prepared by the machinery, and when the cotton was being manufactured into thread. His conclusions were as follows: "More than one-third of the whole power produced is required to overcome the friction of the engine and shafting alone. More than half the power is required to drive the machine used in the preparation and spinning of the cotton, while less than one-sixth of the whole power is required to prepare and spin the cotton. He holds that it is possible to reduce the waste to one-half its present amount."

HUMOROUS.

OYSTERS IN ST. LOUIS.

HOW A LUMBERMAN "WORKED" SIX "TINS" IN ONE DAY.

Job Givens is from the lumber region of Winsconsin, and until yesterday, says a St. Louis paper, had never eaten an oyster. It wasn't his fault, only his misfortune. Job belonged to the truly rural, and somehow oysters had never come in Job Given's way. For some reason Job had drifted to St. Louis to find something to do, and by chance he came yesterday morning, to where an oyster-dealer was packing oysters in boxes for regular orders. Job stood looking on for about an hour, and then he said to the oysterman:

"Say, captain, what hev you got in them things?"

"Baltimore oysters."

"Oysters, eh? I'd like to have one of 'em."

"One can?"

"No, one oyster. I've heard tell of 'em. 'Pears to me I'd like to hev one mighty well."

The oysterman took Job Givens inside and picked out an oyster from the turreen. Job Givens wasn't favorably impressed. He turned it over and over on the fork, put his tongue on it and still he couldn't make up his mind exactly what to do.

"It's all right, I suppose?" said Job.

"Of course it's all right."

Job put it cautiously to his mouth, and the moment it came off his fork it slid down his throat.

"Well, I'm darned, Job Givens, if that aren't queer; the critter didn't give a fellow any show. Say, Major, can't you staud another?"

The oysterman forked out another to see the fun, and this one Job took good care to taste He caught it it his teeth, and there he held it, afraid to let it go. At length it went the way of all oysters, and Job sat quietly:

"Its a big thing, to its looks anyhow. Say, Colonel, how many's in one of them tins?"

"Four or five dozen."

The oysterman wanted help and said to Job, "Pitch in, then, and earn your can."

After werking a couple of hours, carrying up boxes and doing the rough work, Job stopped and asked for his tin. It was given to him and then the trouble was to open it. He had about as clear an idea of doing this as he had of reading Hebrew.

At last they opened the can for him and he sat in the cellar pouring the oysters down his throat out of the can. They offered him a fork and a plate, but that process was too slow for Job Givens.

When he had finished his can, Job wanted to know if he couldn't work out another tin, and the oysterman set him to work again. At the end of another two hours Job, who had worked enough for two men under the inpiration of coming oysters, asked if he had earned his tin; and he took his old seat in the cellar and disposed of his second can in about the same manner as he did the first. All he said they were "big things to their looks."

And still the oysterman kept on packing and Givens kept on working like a steam engine, and at the expiration of every two hours taking his tin into the cellar and pouring the oysters down his capacious throat. At 11 o'clock last night Job had almost worked thirteen hours and had six cans of oysters stowed away under his waist-band. All that he said after every can was, "I tell you General"—he had brevetted the oysterman all the way up from Captain—"them' the biggest to their looks that ever I fell in with."

THE LIGHTNING ROD MAN.

Max Adelor tell this story in the Philadelphia Saturday Post:—

Up in Blossburg the other day a lightning rod man drove up in front of a handsome edifice standing in the midst of trees and shrubs, and spoke to Mr. Summers, who was sitting on the steps in front. He accosted Summers as the owner of the residence, and said:—

"I see you have no lightning rods on this house."

"No," said Summers,

"Are you going to put any on?"

"Well, I hadn't thought of it," replied Summers.

"You ought to. A tall building like this is very much exposed. I'd like to run you up one of my rods; twisted steel, glass fenders, nicle-plated tips—everything complete. May I put one up to show you? I'll do the job cheap."

"Certainly you may if you want to. I haven't the slightest objection," said Summers.

During the next half hour the man had his ladders up and his assistants at work, and at the end of that time the job was complete. He called Summers out into the yard to admire it. He said to Summers:—

"Now, that is well enough, but, if it was my house I'd have another rod put on the other side. There's nothing like being protected thoroughly."

That's true," said Summers; "it would be better."

"I'll put up another, shall I?" asked the man.

"Why, of course, if you think it's best," said Summers.

Accordingly the man went to work again, and soon had the rod in its place.

"That's a first rate job, he said to Summers, as they stood eyeing it.

"I like such a man as you are—big hearted, liberal, not afraid to put a dollar down for a good thing. There's some pleasure in dealing with you. I like you so much that I'd put a couple more rods on that house, one on the north and one on the south, for almost nothing."

"It would make things safer, I suppose,' said Summers.

"Certainly it would. I'd better do it, hadn't I—hey?"

"Just as you think proper," said Summers.

So the man ran up two more rods, and then came down and said to Summers.

"There, that's done. Now let's settle up."

"Do what?"

"Why the job's finished, and now I'll take my money."

"You don't expect me to pay you, I hope."

"Of course I do. Didn't you tell me to put those rods on your house?"

"My house!" shouted Summers. "Thunder and lightning! I never ordered you to put those rods up. It would have been ridiculous. Why, man, this is the court house, and I'm here waiting for the court to assemble. I'm on the jury. You seemed to be anxious to rush out your rods, and it was none of my business, I let you go on. Pay for it! Come now, that's pretty good."

The Blossburg people say that the manner in which the lightning rod man tore around town and swore was fearful. But when he got his rods off the Court house he left permanently. He don't fancy the place.

EMBRACING A PHOTOGRAPHER.

Salvini, the actor, when having a photograph taken, was so delighted with the proof that he flung his arms about the operator and embraced him. This was gratifying to the operator, and did not cost Salvini anything. A gentleman in this place, whose name we will not mention, was very much pleased with the great actor's artifice—as he persisted in terming it,—and, believing that appreciation is dearer to a true artist than money, he concluded to have some photographs of himself. When the proof was shown him he knew that was the time to fling his arms around the operator, but he could not pluck up sufficient courage. He thought he would wait a more favorable opportunity, and became very nervous in consequence. Pretty soon the operator had occasion to reach under a case of specimens for a cloth, and, full of desperation, shut his eyes and swooped down upon him. The frightened artist, believeing that this was a new process for garroting, straightway screamed murder, and sought to defend himself until the arrival of aid by beating the assassin over the face and head with a brush full of varnish. Every lick of the brush developed additional ferocity in the face of the customer, and, consequently, increased the terror of the operator, whose shouts aroused the inmates of the building, and brought to his help in quick succession a tailor, two dress makers, four clerks, and a one-legged basket maker. The benumbed and varnished victim was quickly overpowered, and, being sat upon by as many of the masculines as could be accomodated, was firmly held until the arrival of an officer. Fortunately, he was known by the officer, who recognized him from his apparel,—not being able to see his features for the varnish,—and, upon explaining that the cause of his coming down upon the operator was a sudden dizziness he experienced, he was released. A hack was obtained, and he was taken home, and his head put to soak in lime-water for the removal of the varnish from his face. But it was found necessary to shave his scalp, as it was impossible to save his hair. He is glad now he got the pictures when he did. *Danbury News.*

SWALLOWED WHOLE.

Phibbs an excessively fastidious man, went into an oyster saloon and ordered half a dozen raw on a plate." He noticed just as he had owned his number one, that a corpulent Dutchman stood beside, sorrowfully surveying a single oyster on a plate before him. The moment that Phibbs swallowed his first, the expression of the Dutchman's changed from sorrow to joy.

"Ah! you schwallow him whole?"

"Of course," says Phibbs.

"And you can schwallow him whole too?" pointing with his fork to the lone oyster that lay on the plate before him.

"Certainly I can," says Phibbs, and suiting the action to the word, the oyster was on his fork and in a moment schwallowed.

"Oh! dat is wonderful, wonderful! I never did see. I have tried to schwallow him three times—every time I spit him back."

Phibbs has been quite unwell ever since.